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Vol. CIII.

Allenburys

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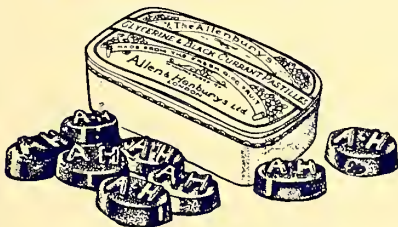
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The intrinsic merits of these pastilles, together with effective and sustained national advertising, have created a very large demand that is rapidly increasing. We supply artistic and attractive show material for window, case and counter display. The 'Allenburys' Pastilles are easy sellers and often convert casual into regular customers.

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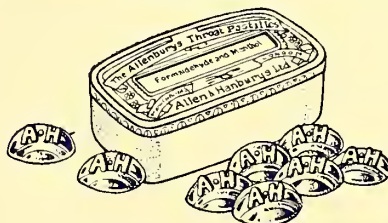


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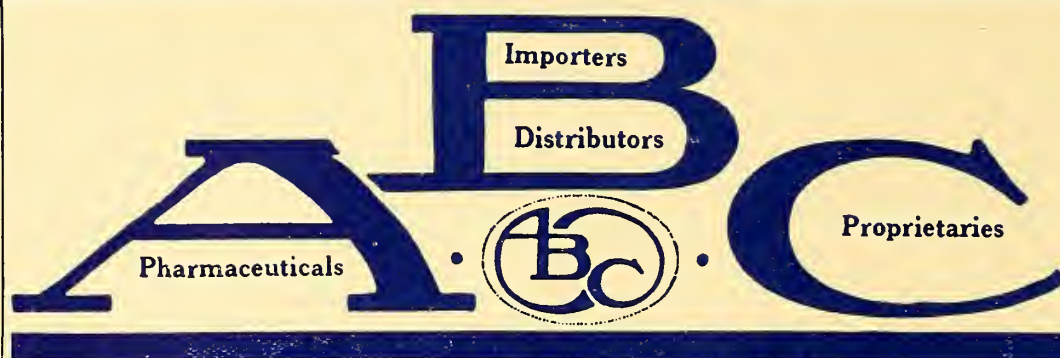
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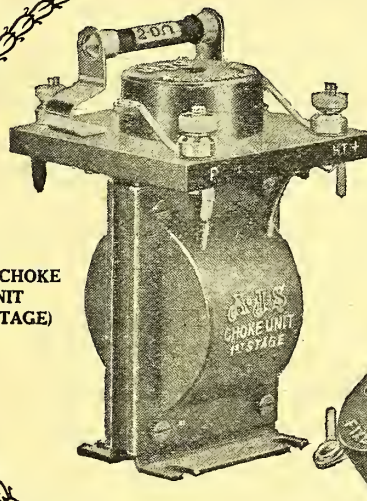
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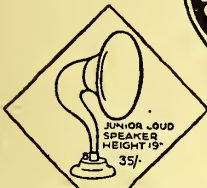
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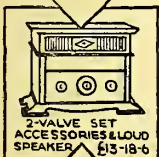
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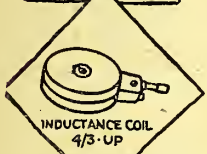
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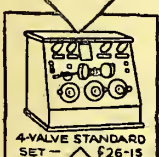
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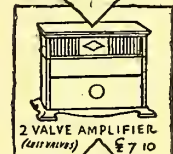
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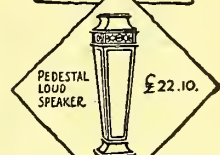
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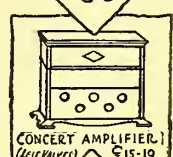
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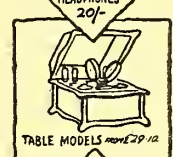
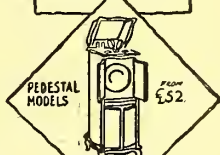


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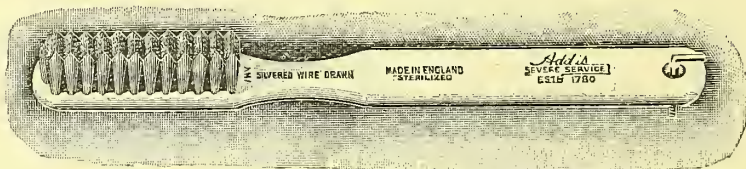
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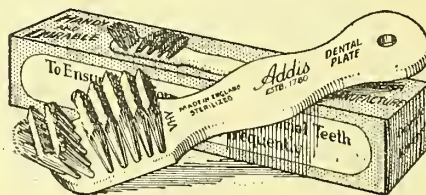
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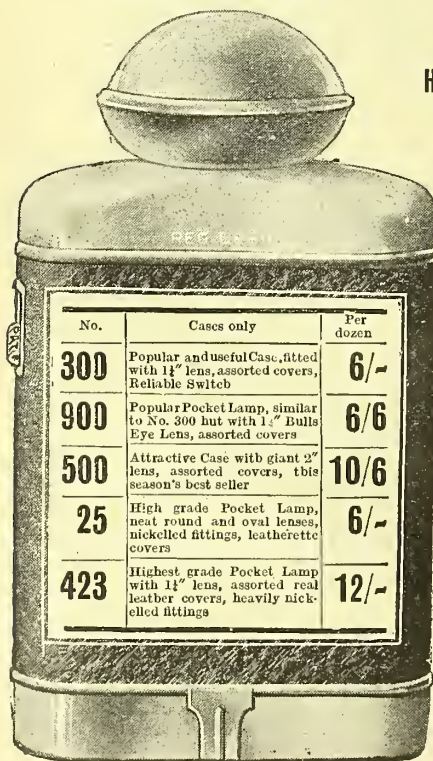
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"VOLEX" Re3d.

POCKET-LAMP

Dry Batteries.

British Made.

Guaranteed only the finest quality chemicals used.

Price, 4/- doz.

47/- per gross

net. Super quality

highly recommended.

Price, 5/6 doz.

63/- per gross net.

Send for price list.

JEWEL METALLIC

FLASH LAMP

BULBS.

Jewel Metal Filament Bulbs. 2 1/2 and 3 1/2 volts. Clear-type, 3/- doz. net.

3/4 Opal Type, 3/6 doz. net. Send for price list.

ELECTRIC REVOLVER FLASH LAMP



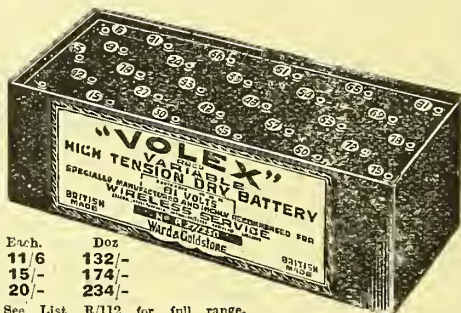
Saleable Novelty.

The battery fits in base and on pressing the trigger the bulb

brilliantly illuminates.

Complete with Battery and Bulb. Price

28/- doz. net.

SAMPSON
ACCUMULATORS.

British Made.

Specially adapted for Wireless and similar service.

Amp. 2 Vlt. 4 Vlt. 6 Vlt.

20 7/6 13/6 19/6

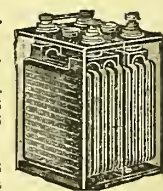
40 10/- 18/- 27/6

60 13/- 24/- 36/-

80 16/- 30/- 44/-

100 18/- 35/- 52/6

Subject Liberal trade discount



Large Catalogue No. A/26, illustrating a wide range of Electrical Novelties, together with 36 pp. Radio Catalogue, No. 112, post free on request. Enclose Business Card for Trade Terms.

Ward & Goldstone
PENDLETON. MANCHESTER Ld.

ALSO AT
LONDON and GLASGOW.



The Advertising of Roboleine

THE FOOD THAT BUILDS THE BODY

"Put yourself on Roboleine."

THE PROOF THAT Roboleine
 THE FOOD THAT BUILDS THE BODY
 is the greatest reconstructive food in the world, comes from
THE HOSPITALS



2/-, 3/6, 6/-
 & 15/- Family Size
 Of ALL Chemists

THE FORMULA OF 'ROBOLEINE' is: Marrow from the long bones, Red Marrow from the rib bones of young oxen, Cream of Milk, Egg Yolk and Reconstituted Lemon Juice.

Send the Coupon—while you think of it.

12-DOSE COUPON

To Messrs. OPPENHEIMER SON & CO. Ltd., 179, Queen Victoria Street, E.C.4.
 Please send me a 12 dose supply. I enclose 6d. in stamps for postage and packing.

NAME

ADDRESS

Mark
 Quinine
 Sample

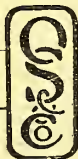
THIS is the kind of advertising we place in the great national dailies, weeklies and monthlies—straightforward statements of FACT which interest the public because they RING TRUE.

When you see these advertisements in the papers, think of this: they are the outward and visible sign of our efforts to send the people to you for their supplies of "Roboleine." As you read the advertisements, so do your customers. Hence it only needs a little display and a word from you to make a sale of a product which, by

its excellence, is bound to increase that goodwill which you are so intent on fostering.

OPPENHEIMER, SON & COMPANY LTD.
 179 Queen Victoria Street, London E.C.4.

O & S



TRADE



MARK

We are now presenting our famous

"GOLD SEAL"

AND

"ELSTER PLATZ"

(Johann Maria Farina)

BRANDS OF

EAU de COLOGNE

In 2-oz. and 4-oz.
CHAMPAGNE
WICKERS.

*The bottles are beautifully wickered,
and are finished off in artistic styles.*

THE PRICES ARE SUCH AS TO
ENABLE THE RETAILER TO
SELL THEM AT EXACTLY THE
SAME PRICES AS THE ORDINARY
2-OZ. AND 4-OZ. BOTTLES.

"GOLD SEAL"	"ELSTER PLATZ"
2-oz. size 33/-	30/- per doz.
4-oz. size 60/-	56/- per doz.

SPURWAY ET CIE, LTD.

89 Great Eastern Street,
LONDON :: :: E.C.2.

CANNES-GRASSE, RIVIERA.
PARIS.

LEIPSIC NEW YORK
KINGSTON (ONTARIO)

Telegrams - "NEROLI, LONDON."
Telephone - BISHOPSGATE 1372.

ESSENCES

HIGHEST CONCENTRATION.

Sole Agents for Gt. Britain and Colonies

FOR

FRIES & BRO. NEW YORK

The World-Renowned Makers of
FIRST QUALITY ESSENCES.

Stocks in London.	PEACH	Ask for Quotations & Samples.
	APRICOT	
	HONEY	
	MAPLE	
	&c.	

A. CONNELL & CO., Melba House,
WENLOCK ROAD, CITY ROAD, LONDON, N.1
Phone: Clerkenwell 7266. Tele.: "Nitrozone, Ald. London."

E. SACHSSE & CO.
LEIPZIG GERMANY

Distillers & Manufacturers of
**ESSENTIAL OILS,
SYNTHETICS, FLOWER OILS,
COMPOUND PERFUMES, etc.**

Specialities:
**TERPENE & SESQUITERPENE
FREE OILS (T.S.F.)
ORRIS OIL PRODUCTS,
B.P. ESSENTIAL OILS.**

*SAMPLES AND PRICES ON APPLICATION TO
Sole U.K. Agents:*

T. HARRISON & CO.
BURNLEY HOUSE, WILLESDEN, N.W.10.
Tel. No. Willesden 731

**IMPORTERS OF CHEMICALS, DRUGS,
ESSENTIAL OILS, ETC.**

STOCKS IN LONDON.



Allwood Bros

CARNATION
PERFUME
POT POURRI
CARNATION
SACHETS

AND BATH CRYSTALS

are the Products of the World's Leading
Carnation Specialists.

THE FINEST QUALITY—DELIGHTFULLY
PACKED—LIBERAL SALES AIDS—AND
AN ADEQUATE MARGIN OF PROFIT
TO THE CHEMIST.

Please write for particulars and Trade Terms to

Allwood Bros

THE WORLD'S LEADING CARNATION
—RAISERS AND SPECIALISTS—

HAYWARDS HEATH, SUSSEX

Please

get your supplies of

AMAMI

Shampoos from

P. A. T. A.

WHOLESALE

*They allow
just the same Bonus*

10%

*on six dozen
sixpenny Shampoos*

AMAMI 4/10 Chenies St. London W.C.1.



A Powder That Matches The Perfume

NOW Lerys Powder is also
available—a worthy com-
panion to Lerys Perfume. All
the fashionable shades—a
unique display box which
shows them *in actuality*—and
a packing which fittingly
suggests their quality.

Stock available in London.

Lérys
PARFUMS
Paris

Manufactured by LÉRY, Paris.

Sole Concessionnaire:

H. A. CLARKE, 34-35 East Castle St., London, W.1.

Telephone: Museum 5612.

"FARRIS'S"

is the Real Old-fashioned Air-Bleached

GENUINE BEESWAX

ABSOLUTELY PURE and ABSOLUTELY SNOW WHITE.

"FARRIS'S" GENUINE YELLOW BEESWAX

is carefully refined and entirely free from dross of any kind.

In slabs about 10 lb. each, also 1-lb., 4-oz., 2-oz., & 1-oz. rounds.

Celebrated for excellence and purity for upwards of three-quarters of a century.

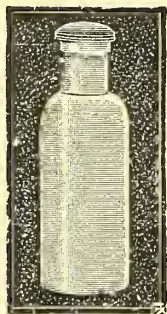
FARRIS'S SPECIALLY REFINED PURE SPERMACETI,
 Refined **MONTAN WAX** (the old-fashioned kind). **STEARIC ACID, CERESINE**

ALSO WAXES & OILS OF EVERY KNOWN KIND & FOR EVERY PURPOSE.

The only actual Manufacturing Wax Chandler in the City of London

Helmet Court, Wormwood Street, Bishopsgate, London, E.C. 2.
 (Entrance also between 77 & 79 BISHOPSGATE.)

A SPECIAL OFFER THIS WEEK

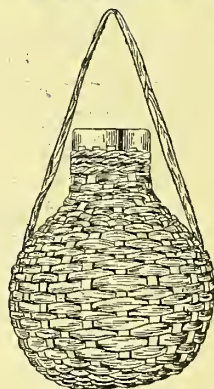


KALI.

We have in stock Vials, Kalis, Medicals, Perfume Bottles, Wickered Eau-de-Colognes, etc.

Fair quantities only supplied to wholesale trade. No retailers supplied.

Send your enquiries now—over 15,000 cases in stock.



WICKERED
EAU-DE-COLOGNE.

Low Prices. Quick delivery. Write NOW for prices and particulars.

JULES LANG & SON

The Glass Specialists
CHARLTON PLACE,
ISLINGTON, LONDON, N.1.

(Opposite Agricultural Hall).

Telephone :
 Clerkenwell 8770-2.

Telegrams :
 "Assorted, Phone,
 London."

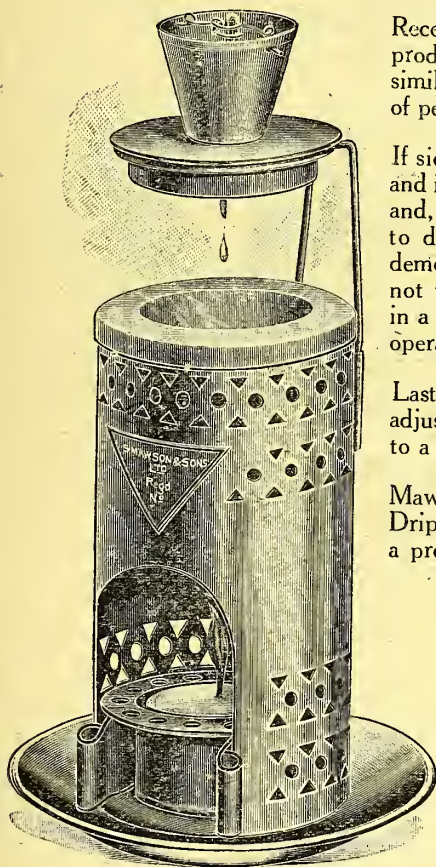
Codes :
 ABC 5th Edition,
 Scott's 10th Edition, 1906
 and Bentley's Complete
 Phrase Code.

Maw's



Page

Creating Sales for Maw's Drip-Feed Vapor Lamp.



Recent Autumn and Winter seasons have been alarmingly productive of influenza, bronchitis, and complaints of a similarly dangerous and unpleasant nature, and the majority of persons have, to a greater or lesser degree, been victimised.

If sickness has been more prevalent, Maw's Drip-Feed Lamp and its medicament, aero-cotarol, have increased in popularity and, in view of the experience of past years, should continue to do so if prominently displayed and, wherever possible, demonstrated in the pharmacy. Such a demonstration will not fail to arouse widespread interest and is sure to result in a substantial increase in the sales of an inexpensive, easily operated, and thoroughly reliable vaporiser.

Last season a simple spring enabling the lamp to be adjusted was added, and brought Maw's Drip-Feed Lamp to a standard of perfection difficult to surpass.

Maw's Aero-Cotarol, which is sold in conjunction with the Drip-Feed Lamp, brings constant repeat business and carries a profit which makes it a wholly worth-while line.

Prices :

	Wholesale.	Retail.
Drip-Feed Lamp ..	20/- per doz.	2/6 each.
In 3 doz. Lots ..	19/- " "	" "
Aero-Cotarol		Per bottle.
Large Size ..	18/- per doz.	2/3
Small Size ..	10/- " "	1/3

Night-lights specially suitable for the Drip-Feed Lamp.
In boxes of six. Per dozen boxes, 6/-.

Maw's Drip-Feed Lamp is protected by patents Nos. 170463 and 12483/24.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.



A New Sales' Field for all Chemists



The success of O-Cedar Polish gives Chemists everywhere the opportunity of selling a very profitable line. During the last few weeks no less than 250,000 free samples of O-Cedar Polish have been distributed free to housewives throughout the country. O-Cedar publicity embraces every type of newspaper, magazine, and weekly periodical, which explains why the demand for this household product is so phenomenal.

The campaign now in operation covers the population of Great Britain many times over, and shows a grand total of circulation of well over two hundred millions. Every one of the announcements makes special mention of Chemists as a source of supply.

O-Cedar, Ltd., with a view to making the distribution of O-Cedar Polish still more effective and widespread, desire to link up with the Chemists throughout the Kingdom. The profits to be made from the sales of O-Cedar Polish are generous and are evenly spread over the whole year. O-Cedar is always wanted in the home, which gives the Chemist the opportunity to establish a growing trade.

All Chemists are invited to write for trade terms and full particulars, and application at the same time should be made for supplies of showcard, window bills, and display stands.

O-Cedar Polish

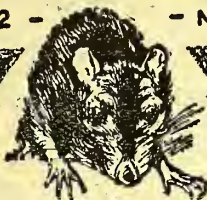
O-CEDAR, LTD., SLOUGH, BUCKS.

RAT WEEK

NOVEMBER
2nd—9th

RAT WEEK

NOV. 2 - - NOV. 7



Save your share of the £70,000,000 a year which rats cost the public. Do your part in the wholesale extermination and get a tin of "Liverpool Virus" from your chemist. "Liverpool Virus" spreads death amongst the rats. They all die in the open. Harmless to everything else.

LIVERPOOL VIRUS

wipes out Rats & Mice

All Chemists, etc.
Prices: Mice 1/6. Rats 2/6 and 6/-. in tins ready to use. Post free from Evans Sons Lescher & Webb Ltd., 56 Hanover Street, Liverpool

RAT WEEK'S most powerful weapon—

Next week is Rat Week, the week set aside for an intensive campaign against rats. Make Rat Week effective and economical. Use its most powerful weapon "Liverpool Virus." spreads death amongst rats and they all die in the open. Harmless to everything else.



LIVERPOOL VIRUS

wipes out Rats & Mice

All Chemists, etc. Prices: Mice 1/6. Rats 2/6 and 6/-. in tins ready to use. Post free from Evans Sons Lescher & Webb Ltd., 56 Hanover St., Liverpool.

LIVERPOOL VIRUS IS TO-DAY A NATIONAL NECESSITY.

We are doing our bit in bringing RAT WEEK before the public in the columns of the National and Provincial Press—as above; referring the public to *you*.

Will you co-operate in the National Campaign and wage war against the greatest enemy of man by a bold display of "LIVERPOOL VIRUS" in your pharmacy during RAT WEEK?

"LIVERPOOL VIRUS" is the scientific and safe method of fighting the Rodent menace, and means 50% profit to you, on a war against an enemy 50,000,000 strong!

EVANS SONS LESCHER & WEBB LTD.
LIVERPOOL NEW YORK LONDON

PYRAMIDS

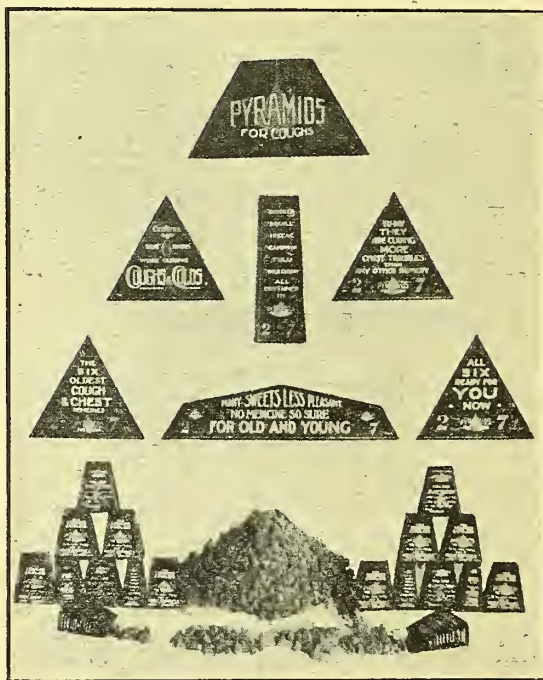
For COUGHS.

"PYRAMIDS for Coughs" are beautifully moulded triangular pyramids of delicately textured pastille base, carrying an honest and good "Cough" formula—a combination of some of the earliest known recipes.

Patently an article of worth, yet PYRAMIDS sell at the magic price, 2d. per oz., 7½d. per 4 ozs.—magic because, while even 2½d. is "prohibitive," 2d. makes for easy sales, and in ¼ lb. and ½ lb. lots.

"PYRAMIDS for Coughs" are so far in front of the host of "CoughJubes" as to constitute a new era, in which the indifferently medicated and roughly finished "Jubes" of recent years find little place.

The illustration conveys an exceedingly poor impression of the red, white, black and yellow display which is sent free with each order for 28 lbs. and up. 50 4 oz. cartons in the same colours and style come with each 28 lbs.



"PYRAMIDS for Coughs" are as old, almost, as the hills in composition, yet as novel as "Wembley" in their presentation.

PYRAMIDS bring pyramid-shaped cartons and pyramid-shaped showcards, which, in their turn, rise into a pyramid-shaped display, while everywhere, on cards and cartons, appears a bold red Pyramid standing out of the solid black, and fronted by the slogan (in yellow) "PYRAMIDS FOR COUGHS."

A glance fixes the PYRAMID sign on the memory. EIGHT SECONDS suffice to read the whole powerful story, for a PYRAMID standard window is a model of studied display.

	1/8 per lb.
8	1/7 "
16	1/6 "
28	1/5 "
56	1/4 1/2 "
112	1/4 "

A sample and carton will be gladly posted on request.

ERNEST JACKSON & CO. LTD.

LONDON DEPOT
Plantain Place.
Crosby Row
Boro. S.E.
Phone. HOP. 2668

MANUFACTURING CHEMISTS
Makers of Lozenges, Pastilles & Compressed Tablets
CREDITON. DEVON.

Telephone
CREDITON 10
Telegrams
JACKSON, CREDITON

Children's BLACK CURRANT COUGH ELIXIR

Uncartoned	doz.	gross
2 OZS.	.. 5/9	5/6
4 OZS.	.. 8/3	8/-
Cartoned		
2 OZS.	.. 6/9	6/6
4 OZS.	.. 9/3	9/-

CHERRY COUGH LINCTUS

Uncartoned	doz.	gross
4 OZS.	.. 7/9	7/6
Cartoned		
4 OZS.	.. 8/9	8/6

GLYCERINE HONEY & LEMON

	doz.	gross
3 OZS.	.. 6/6	—
6 OZS.	.. 8/6	—

LUNG TONIC

Uncartoned	doz.	gross
2 OZS.	.. 5/3	—
4 OZS.	.. 7/6	—
Cartoned		
2 OZS.	.. 5/9	—
4 OZS.	.. 8/-	—



Children's CHERRY COUGH SYRUP

Uncartoned	doz.	gross
2 OZS.	.. 5/6	5/3
4 OZS.	.. 7/9	7/6
Cartoned		
2 OZS.	.. 6/6	6/3
4 OZS.	.. 8/9	8/6

WILD CHERRY COUGH and COLD LINCTUS (Narcotic)

Uncartoned	doz.	gross
2 OZS.	.. 5/9	5/6
4 OZS.	.. 8/9	8/6
Cartoned		
2 OZS.	.. 6/9	6/6
4 OZS.	.. 9/9	9/6

LINSEED HOREHOUND and HONEY

Uncartoned	doz.	gross
2 OZS.	.. 5/3	5/-
3 OZS.	.. 6/3	6/-
4 OZS.	.. 7/3	7/-
6 OZS.	.. 9/-	8/9
Cartoned		
2 OZS.	.. 6/3	6/-
3 OZS.	.. 7/3	7/-
4 OZS.	.. 8/3	8/-
6 OZS.	.. 10/-	9/9

COUGH MIXTURES

Buyer's Name and Address on not less than 3 dozen label styles sent on request

AYRTON'S

FOR PACKED GOODS

LIVERPOOL

PINE CONCENTRATE

(Make one pint of cough mixture)

Cartoned	doz.	gross
1 OZ.	.. 7/-	—

PINE MINT SYRUP

Wrapped and labelled.

	doz.	gross
4 OZS.	.. 8/6	—
8 OZS.	.. 12/6	—

WHOOPIING COUGH MIXTURE

	doz.	gross
2 OZS.	.. 5/9	—
4 OZS.	.. 8/3	—





**When you're
BUYING —
remember GOODALL'S**

MALT and OIL



WILL you be good enough—in your own interest and ours—to ask us to send you quotations before you buy? We offer a wonderful range of labels (specimens sent with quotation) and the best grade, best-looking Malt Extract at a price that will enable you to compete with anyone.

*Send a card for
GOODALL'S
price to-day.*

GOODALL, BACKHOUSE & CO., LEEDS

**Let Goodall's
quote.**

Display Stand FREE!



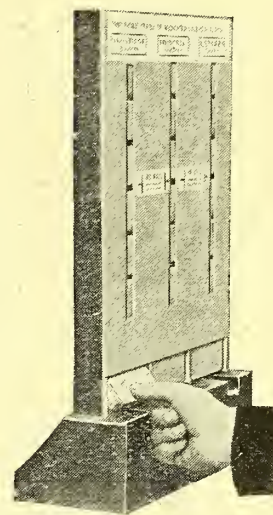
The Free Kerfoot Pastille Stand - - - Front

The stand is designed and lettered in white and gold on a black back-ground, in harmony with the display outers which Chemists have found to be so effective.

The back of the stand carries duplicate title-slips. Narrow slits show at a glance the number of tins present, whilst the "safety-line" indicates when it is necessary to re-fill.

This ingenious "silent salesman" is offered free of charge and carriage paid with orders for 6 dozen "marble" tins of Pastilles. Titles may be assorted as desired. Strongly made of wood and leather-board, the stand takes up only 14" x 6" counter space and solves the problem of a pilfer-proof display.

Titles available in addition to those illustrated—
BRONCHIAL :: MENTHOL & EUCALYPTUS
CHILDREN'S THROAT & CHEST



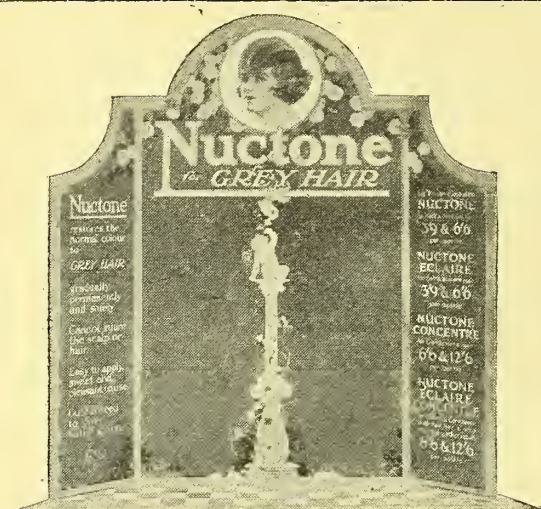
Back View of Stand

Showing the method of withdrawing the tins

THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

B/67

COPYRIGHT



Use this New Showstand

It has already proved itself a good salesman of NUCTONE in many parts of the country. From a decorative point of view it would be hard to beat, and it forms a splendid link between our advertising and your cash-till. Ask for it when you next order NUCTONE.

You sell NUCTONE under a definite guarantee of safety backed by the manufacturers. When asked for a colour restorative for Grey Hair you can recommend it with confidence every time.

Nuctone

for GREY HAIR

In

Four

Grades

NUCTONE for dark and medium hair.
3/9 size 32/- doz., 6/6 size 52/- doz.,
NUCTONE ECLAIRE for fair & auburn
hair. 3/9 size 32/- doz., 6/6 size 52/- doz.
NUCTONE CONCENTRE for Gentlemen's
hair, 6/6 size 52/- doz., 12/6 size 84/- doz.
NUCTONE ECLAIRE CONCENTRE
for Ladies and Gentlemen with fair
hair who want a quicker result.
6/6 size 52/- doz., 12/6 size 84/- per doz.

Obtainable from your usual wholesalers or direct from—

QUELCH & GAMBLE, Ltd.
211/215 Blackfriars Road, London, S.E.1

Manufactured by

STEWART, GOODALL & DUNLOP, LTD., 4 Den n - St., London, W.1

DEARBORN (1923) LTD.

37 Gray's Inn Road, London, W.C.1

Toilet Specialties.

	Price per doz. to Retailer	Selling Price P.A.T.A.
PILENTA SOAP	10/-	1/-
A complexion soap.		
PROLACTUM	10/-	1/-
For the lips.		
PARSIDIUM JELLY	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM	22/6	2/6
A dressing cream.		
BORANIUM	22/6	2/6
A hair tonic.		
CLEMINITE	22/6	2/6
For a face lotion.		
COLLIANDUM	22/6	2/6
For a face tint.		
PERGOL	22/6	2/6
A deodorant.		
TEKKO PASTE	22/6	2/6
Camphor cream.		
STALLAX	{ 13/6 22/6	1/6 2/6
For a shampoo.		
JETTALINE	31/6	3/6
For clearing the skin.		
PHEMINOL	36/-	4/-
A depilatory.		
MENNALINE	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX	{ 18/- 31/6	2/- 3/6
A face cream.		
STYMOL	36/-	4/-
For oily complexions and blackheads.		
SILMERINE	22/6	2/6
Hair-curling fluid.		
BARSYDE	22/6	2/6
Dandruff eradicator.		
TAMMALITE	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM	22/6	2/6
For whitening the hands.		
COCONOIDS	31/6	3/6
For figure development.		

The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES	{ 36/- 58/6	4/- 6/6
For obesity.		
SOFT PALERIUM	45/-	5/-
For wrinkles.		
LIQUID NAIL POLISH	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

COLONIAL DEPÔTS AND AGENCIES.

Australia: ALL WHOLESALE, & DEARBORN (Australia), Ltd., Grace House, Clarence Street, Sydney.
South Africa: LENNON, Ltd., Cape Town, etc.
SIVE BROS. & KARNOVSKY, Johannesburg.
India: FRAMJEE & SON, Bombay.
A. L. CHOUDRY, Calcutta.
New Zealand: SHARLAND & CO., Auckland and Wellington.
South America: DEARBORN (South America) Ltd., Calle Payon 2100, Buenos Aires.
Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore.

Liquid Paraffin CAUTION

THE market is being flooded with supplies of cheap liquid paraffin of very doubtful quality and obscure origin.

Every pharmacist knows that the whole therapeutic value of liquid paraffin as an intestinal lubricant depends upon its standardisation to a definite viscosity and gravity, etc. Upon testing a number of these "cheap oils" not one was found to completely conform to the recognised standards.

The reputation of the pharmacist and his business is built and upheld by the purity and integrity of his products.

There is no excuse for buying these unknown and questionable liquid paraffins, even on the question of price, for there is no similar quality liquid paraffin on the market which can be offered at a lower price than "Specialty" brand, and no other liquid paraffin—at any price—which is so thoroughly standardised and controlled in every detail.

Year in and year out, every gallon of "Specialty" liquid paraffin .890 is definitely guaranteed to be of standard uniformity, viscosity, purity, therapeutic value and pharmaceutical excellence.

"Specialty" .890 liquid paraffin never varies—is brilliant at 0° C. and conforms to tests far more rigid than those laid down in the British Pharmacopœia. For these reasons alone it is safer and most satisfactory to use. A new filler fitting both the 5-gallon and 2-gallon containers is supplied free. Send your enquiries, and you will note how advantageously you can buy.

We produce the finest quality .890 standardised Liquid Paraffin in the world and can supply immediately from stock any quantity from $\frac{1}{2}$ gallon to tons as required.

"Specialty"
LIQUID PARAFFIN .890
Adds to the profit and prestige of your pharmacy.

ANGLO-AMERICAN OIL CO., LTD.,

"Semprolia" Works,
Albert St., Camden Town,
London, N.W.1.

Telephones:
Hampstead 4046 & 4047.

Telegrams:
"Nufinjol, Norwest, London."

SPECIAL ANNOUNCEMENT

Messrs. EUCRYL LIMITED beg to announce that in response to the very numerous requests which have been received from their good friends in the Wholesale and Retail Chemists' Trade, they have now introduced a large size in their already popular selling line

EUCRYL DENTURE POWDER

It has been found impossible to make use of a Sprinkler Tin without altering and decreasing the efficiency of the Powder. Consequently, this new size is a large flat tin listed at 8/- a dozen, retailing at 1/- each, on usual full bonus terms.

Further, as a special introductory offer Messrs. EUCRYL LIMITED are prepared to supply on all first orders, 1 dozen only, carriage paid, on full bonus terms.

Eucryl Ltd. - Shirley - Southampton

Frozoclone

REGD.

The Original & Best
SOLID EAU DE COLOGNE



In Green Bottles Registered
ACTUAL SIZE OF
STANDARD PACKING.

IN 2 SIZES

In order to meet the insistent demand for a smaller size bottle of the Original "Frozoclone" a small packing has also been introduced. Chemists will find that this smaller size has a ready sale.

PRICES P.A.T.A.

ORIGINAL

PACKING
32/- Doz.

3/6

RETAIL.

NEW

PACKING
16/- Doz.

1/10

RETAIL.

**Important Notice
to Shippers and
Overseas Buyers**

WRITE FOR SPECIAL EXPORT TERMS

Formerly the minimum quantity for Bonded Shipment was 4 gross. Arrangements have been made with the Customs and Excise Authorities whereby it is now possible to supply for *Bonded Shipment* quantities from a minimum of 1 gross large or 2 gross small upwards.



ACTUAL SIZE OF NEW
SMALLER PACKING.



THE LUSCIOUS LAXATIVE

**OTHER DEMUTH
LINES WORTH
ATTENTION**



R. DEMUTH'S LABORATORIES

68 SALUSBURY ROAD
& MONTROSE AVENUE,
LONDON, N.W.6.

Peldo
(Patent applied for)

THE
INVISIBLE
GLOVE

IF YOU SHOW 'PELDO' YOU WILL SELL IT!

'PELDO' IS ORIGINAL.

It is not a Substitution for Anything.

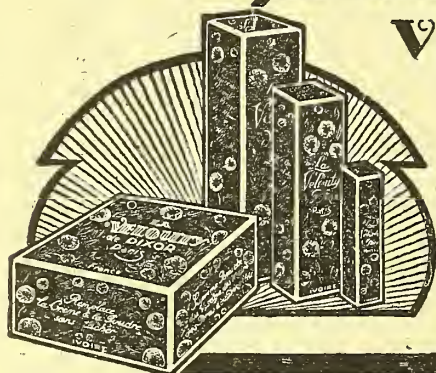
Obtainable from all the Patent Houses @ 13/6 per dozen.

WINDOW DISPLAY MATERIAL FREE ON APPLICATION.

SOLE PROPRIETORS AND MANUFACTURERS:

C. R. HARKER, STAGG & MORGAN, LTD.

Devon Wharf and Bell Wharf,
EMMOTT STREET, MILE END, LONDON, E.1.



VELOURY de DIXOR PARIS ..
COMBINED CREAM AND POWDER

The advertised line that you are asked for

DAINTY PRESENTATION

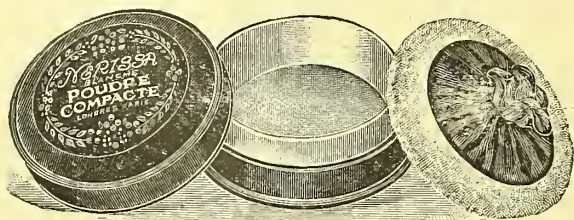
Samples free upon receipt of tradecard or billhead

Prices:—Full size pot 21/- doz. Retail .. 2/9
Super Tube 22/- " " .. 3/-
Large " 14/- " " .. 2/-
Handbag " 3/- " " .. 6d.

Made in three shades: WHITE, IVORY and NATURAL

Obtainable from your regular Wholesaler or direct from the Sole British Agents:
DEBACQ & HARROP, 68 Newman Street, Oxford Street, LONDON, W.1

Poudre Compacte



The best range of Solid Powders on the market.

All complete with Puff, in assorted perfect tints. In attractive Show Boxes of 1 dozen.

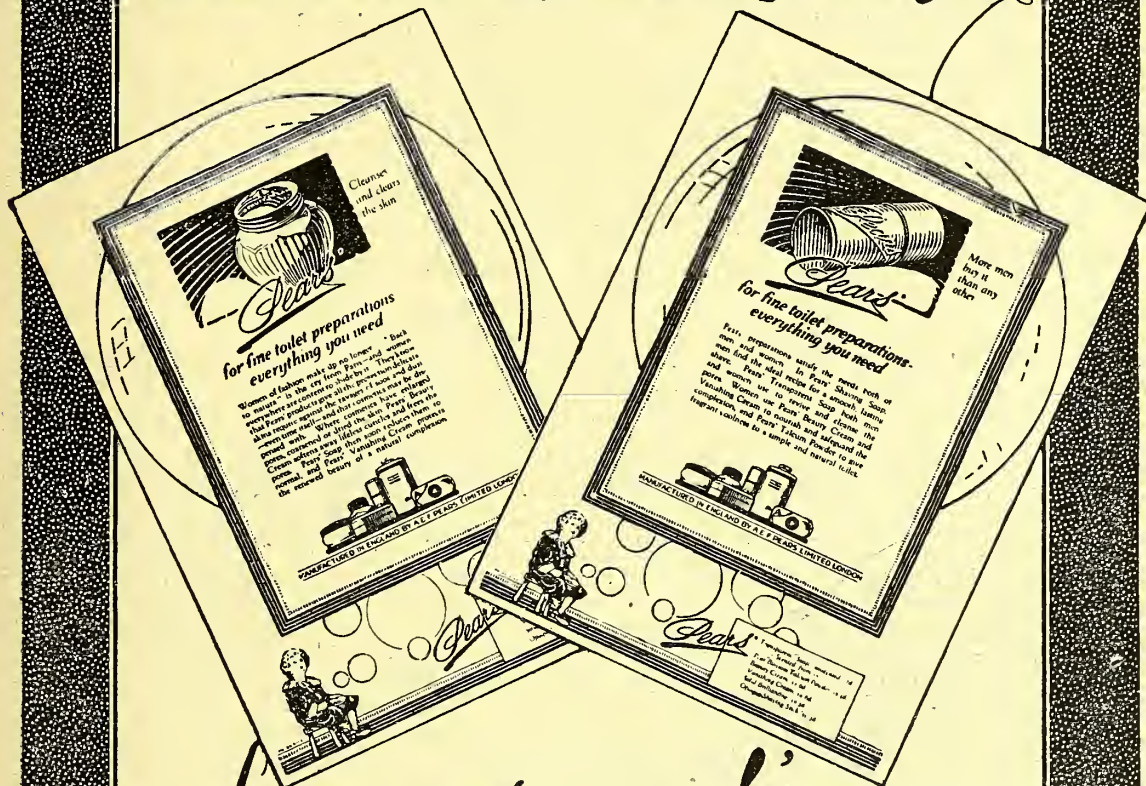
- | | | |
|--------|--|----------|
| F100. | "Thé Dansant," Nickel Plated Box | 6/- doz. |
| F101. | "Thé Dansant," " " with diminishing mirror | 7/6 " |
| F102. | "Secret Charm," Embossed Aluminium Box, with diminishing mirror | 5/- " |
| F103. | "Golden Dawn," Imitation Gold Box, with diminishing mirror | 7/6 " |
| F104. | "Damask Rose," Imitation Gold Box, decorated in colours, with diminishing mirror | 7/6 " |
| F1003. | "Nerissa," Attractive Card Boxes as illustrated, in handsome display outer | 5/- " |

Obtainable through all Wholesale Houses.

Perfect Powder. Freedom from breakage. Daintily presented. An assortment that will meet the taste of every buyer and bring repeat orders.

Sole Manufacturers: **SOLPORT BROTHERS, LTD., 184/190, Goswell Road, E.C.1.**

These two are part of a large advertising campaign



for *Pears'*
**TOILET
PREPARATIONS**



WRITE FOR TRADE TERMS TO SALES MANAGER, 71-75 NEW OXFORD ST., W.C1.

Euthymol Advertising

EUTHYMOL advertising is devoid of sensationalism, but it is persistent and sincere.

This, coupled with the undoubted merit of the product, and the recommendation of satisfied users, results in a constantly increasing demand.

Emphasis is always laid upon the fact that Euthymol Tooth Paste is obtainable "of all chemists."

Euthymol is used all the year round and therefore always pays to show in your window and upon your counter.

IMPORTANT.

On and after
NOVEMBER 5th
our Beak St. telephone
number will be
"Regent 7801."

Euthymol

TOOTH PASTE



"StaffAllenS"

grind the following:

GUM ACACIA

ALOES

BELLADONNA LEAVES

BELLADONNA ROOT

CAPSICUM

DIGITALIS LEAVES

GENTIAN ROOT

HENNA LEAVES

JALAP

LIQUORICE,

COMPOUND

POWDER

NUX VOMICA

OPIUM

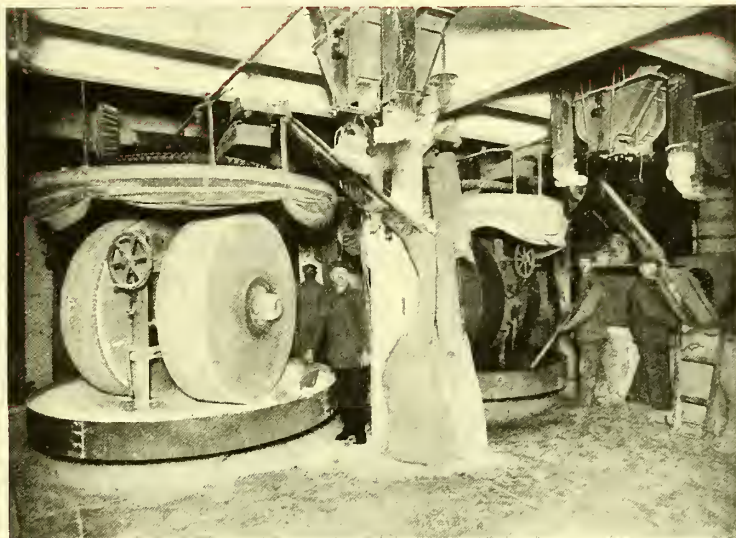
ORRIS ROOT

RHUBARB

SENNA LEAVES

SOAP

TRAGACANTH.



Edge Runners for Drug Grinding

SINCE 1833

IN 1833 Stafford Allen commenced business in the premises now known as 7 Cowper St., Finsbury, expressly to meet the demand of the London Druggists for PURE UNADULTERATED POWDERED DRUGS.

Though nearly one hundred years have passed since the first mill was installed, "StaffAllenS" maintain the policy of the founder, and their Powdered Drugs are still The Standard of Excellence.



*Elect
Powdered Tragacanth
packed for export.*

"StaffAllenS" POWDERED DRUGS

STAFFORD ALLEN & SONS, LIMITED

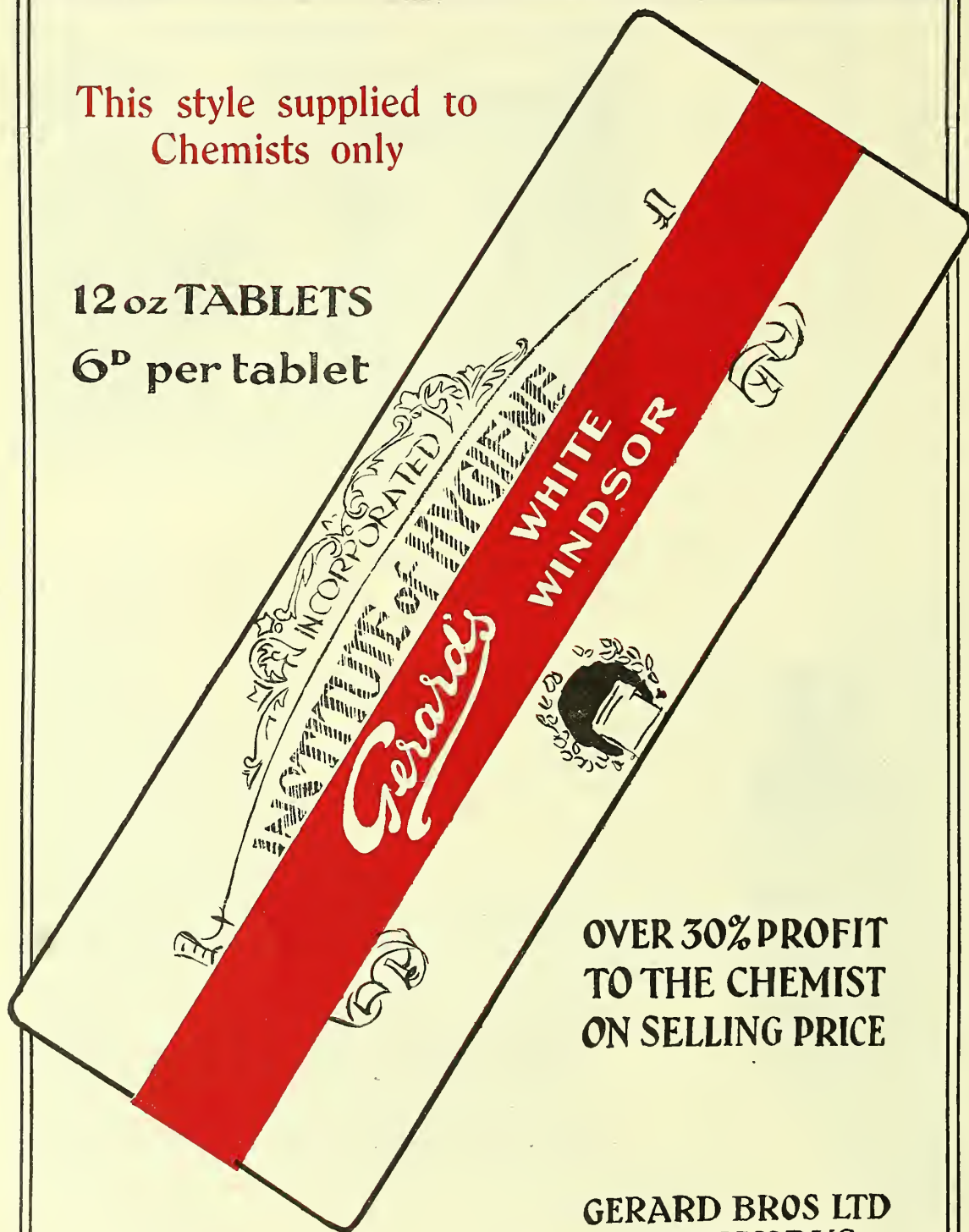
Drug Millers since 1833,

COWPER STREET, FINSBURY, LONDON, E.C.2

**This style supplied to
Chemists only**

12 oz TABLETS

6^d per tablet



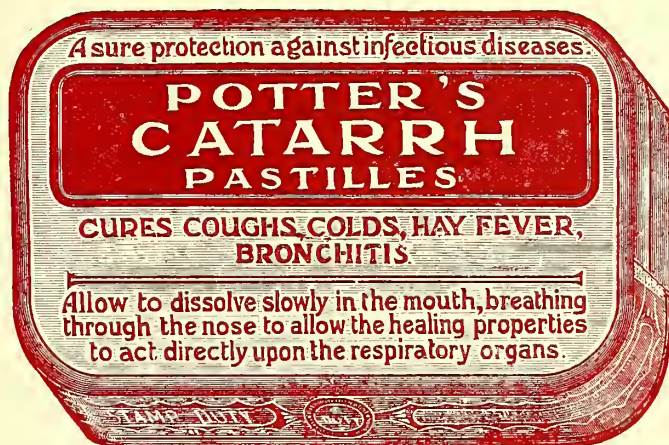
**OVER 30% PROFIT
TO THE CHEMIST
ON SELLING PRICE**

**GERARD BROS LTD
SOAP WORKS
NOTTINGHAM**

POTTER & CLARKE
 LIMITED
 60-64, ARTILLERY LANE, LONDON, E.C.1.

TELEPHONES : BISHOPSGATE 1033-4-5.
 TELEGRAMS : " HOREHOUND, PHONE, LONDON."
 MANCHESTER : 24 LUNA STREET, GREAT ANCOATS

IN GREAT DEMAND—



**WIDELY ADVERTISED IN ALL THE
 LEADING NEWSPAPERS.**

P.A.T.A. 1/3 - - 10/- doz.

IN 1 DOZ. BOXES.

SHOWCARDS FOR WINDOW & COUNTER
 : DISPLAY WITH ALL ORDERS :

Obtainable from all Wholesale Patent Medicine Houses, or
 direct from the Manufacturers.




“NAPOLEON” Cough-Cure Powders

OUR NATIONAL WINTER CAMPAIGN OF ADVERTISING in the public press is actively proceeding and will continue uninterruptedly throughout the season. We are now appealing to over 25,000,000 people by means of our advertisements in daily and weekly press and are booking up the finest positions in leading morning papers such as *The Daily Mail*, *The Daily News*, *The Daily Express*, *The Daily Chronicle*, etc., also in *The News of the World*, *John Bull*, etc.

The “NAPOLEON” Brand Products are on the P.A.T.A., your profit is assured, and we request the favour of your co-operation.

“Napoleon” Cough-Cure Powders

Small Size.
1/6

Family Size.
3/9

P.A.T.A.

“Napoleon” Gout and Rheumatism Powders.

Small Size.
2/6

Larger Size.
6/9

P.A.T.A.

These lines are not subject to Patent Medicine Stamp Duty.

TRADE TERMS.

“NAPOLEON” Cough-Cure Powders.

RETAIL. WHOLESAL.
Per dozen net.

1/6 Size ..	13/6	11/9
3/9 Size ..	33/9	29/3

“NAPOLEON” Gout & Rheumatism Powders.

RETAIL. WHOLESAL.
Per dozen net.

2/6 Size ..	22/6	19/6
6/9 Size ..	60/9	52/8

Please apply for Free Samples for distribution to your Customers.

Attractive Bonus and Display Terms on application.

Our Special WINDOW DISPLAY Terms show 35.7 % Profit on Turnover.

55.5% Profit on Outlay

ORDER NOW FROM YOUR WHOLESALER.

H. R. NAPP LIMITED, 3 & 4 Clements Inn, LONDON, W.C.2

Telephone: Holborn 1444 (2 lines)

Telegrams: “Nappehem London”




A Name that Merit has made Famous

"HARLENE- HAIR-DRILL"

THE extensive and intensive advertising campaign constantly running in connection with "Harlene" still continues and will still continue to draw immense response from all over the country. Thousands of Free Trial Gift Parcels are dispatched to new applicants every day, thus increasing the already colossal retail business.

Do you stock the following "Quick Sellers"?

- | | |
|--------------------------|--------------------------|
| "Harlene" for the Hair | "Astine" Vanishing Cream |
| "Uzon" Brilliantine | "Astine" Tooth Cream |
| "Cremex" Shampoo Powders | "Astine" Shaving Stick |
| "Astol" for Grey Hair | "Astine" Nail Cream |

AN ENTIRELY NEW LINE!

"JUNOFLORIS" Spring Breath.

A Breath Purifier and Antiseptic Mouth and Stomach Deodorant in Tablet Form—NOT a Cachou. As "Junofloris" is an entirely New and Original line which does not compete with anything in existence, it will therefore add EXTRA PROFIT to your Business.

Prices: { Advertised (minimum Retail) 7½d. & 1/1½ per box
Makers' .. 6/8 & 12/- .. doz.

Less 20 % Discount.

Packed in Neat Counter Display Cartons of
1 doz. Boxes which Sell "Junofloris" at sight.

*No Chemist or Store can afford to be without
this Unique Line of Toilet Preparations.*

**PLACE YOUR
ORDER TO-DAY.**

For Full Particulars, Terms, etc., write to:—

EDWARDS' HARLENE LTD.

20, 22, 24, 26 LAMB'S CONDUIT
STREET - - LONDON, W.C.1.

The World's Best Hairbrush

means quicker sales and bigger profits for you

Why? Because it has more selling points than any other brush in the world. Because it meets to a greater degree than all others the modern woman's need for deep, penetrating hairbrushing **plus absolute cleanliness.**

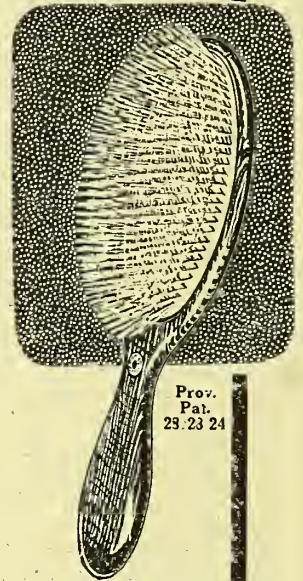
Consider for a moment the strength and toughness of the bristles and the resiliency of the rubber pad in which they are set. Is there any other brush more capable of getting right down to the roots of the hair than the "Klenly" Brush? Consider also the tempting beauty of the various colours and designs.

And this is not all. Both the bristles and the pneumatic pad are **white.** Because of this the brush is always kept clean; its whiteness instantly betrays any dirt or dust that may come from the hair. The air vent, too, is placed in such a position that it's the easiest thing in the world to clean the brush.

These then are the reasons why **you** should stock the "Klenly" Hairbrush—why you should take **your** share of the extra-generous margin of profit that we, as the **actual manufacturers** can afford to allow you.

RIGBY'S Klenly HAIR BRUSH

RIGBY, BATTCOCK LTD., 28 MUSEUM STREET, LONDON, W.C.2.
Protected in U.S.A., CANADA and FRANCE.

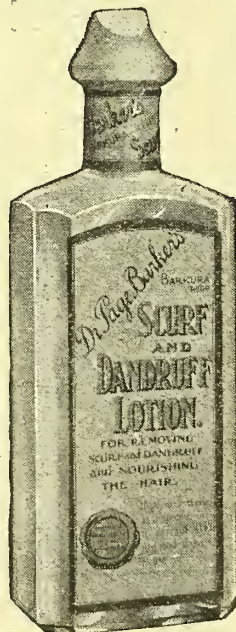


Prov.
Pat.
23.23.24

Write at once for special folder giving full details and prices of the various designs and see for yourself what attractive opportunities the "Klenly" Brush affords for profitable business. Christmas is coming—verb. sap.

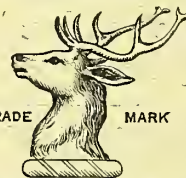
Dr. Page-Barker's Scurf Lotion

THE specific recognised throughout the Trade as the one genuine and reliable remover of Scurf and Dandruff. Every bottle carries a guarantee. 18/- per dozen, retail at 2/6. With an order of three dozen you get a free bonus of three 2/6 bottles, also an attractive showstand. Smart show matter. Leaflets with your own name.



THOS. CHRISTY
& CO.

4, Old Swan Lane,
Upper Thames St.,
E.C.4.



TRADE MARK

BIDWELL BIDWELL & CO. LIMITED.

BIDWELL'S "GLORIA" and "PROPHYLACTIC" TOOTH BRUSHES.

Also Pure Bristle

HAIR, NAIL and SHAVING BRUSHES.

Highest Class—Gold Medal—Established 1839

GOODS MOST SUITABLE FOR CHRISTMAS PRESENTS :

"COMPAGENIC" CASE. Two Hair Brushes fitting into one another, with Comb.

"SHINGLETT" HAIR BRUSHES in Satinwood or Ebony.

SMALL ERINOID BRUSH & COMB in leather case for Hand Bags.

BADGER HAIR SHAVING BRUSHES in Transparent Tubes.

Factories : AXMINSTER, ENGLAND.

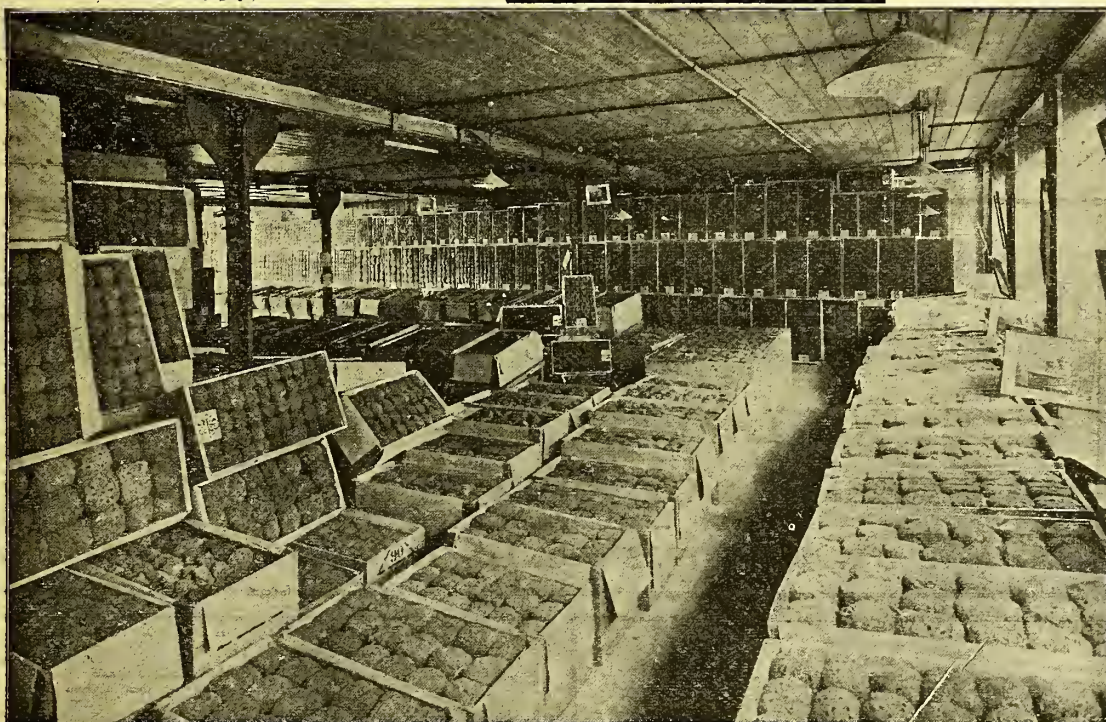
Telegraphic Address: "CRESSWELL, HOLB., LONDON."

Telephone: No. 1432 Holborn.

THE SPONGE HOUSE

INTERNATIONAL SPONGE IMPORTERS, LIMITED,
CRESSWELL BROTHERS BRANCH

Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers,
 18 and 19 RED LION SQUARE (New Warehouses and Steam Bleacheries,
 45, EAGLE STREET) LONDON, W.C.
 WITH THE LARGEST STOCKS OF ALL SPONGES IMPORTED DIRECT FROM THE FISHERIES AT LOWEST PRICES.



BUYERS ARE INVITED TO CALL AND INSPECT OUR LARGE AND VARIED STOCKS, AND THEY WILL CONVINCE THEMSELVES THAT THEY ARE DEALING IN THE "CHEAPEST MARKET"

UNBLEACHED MEDITERRANEAN SPONGES in Original Cases



HONEYCOMB.

Extra Choice. Finest
 Texture and Shape.
 The Pick of all the
 Fisheries.

Pieces in Case.	Average Price per Piece.
300 Toilet at	9d.
250 " "	1/-
200 " "	1/6
160 " "	2/-
140 " "	2/6
120 " "	3/-
100 " "	3/6
90 Medium Bath	4/6
80 " "	5/6
72 " "	6/6
60 " "	7/6
45 Large	8/6
30 " "	10/6

HONEYCOMB.

Toilet & Bath.

Good 2nd Quality.

Pieces in Case.	Average Price per Piece.
270 at	6d.
180 " "	9d.
170 " "	1/-
160 " "	1/6
140 " "	2/-
120 " "	2/6
110 " "	3/-
90 " "	3/6
80 " "	4/-
75 " "	4/6
70 " "	5/-
65 " "	5/6
60 " "	6/6

FINE TURKEY

SOLIDS.

SELECTED
 SHAPES.

1st Quality.

	Average Price in per Case. Piece.
Nursery 200 at	1/-
Toilet 150 " "	1/6
" 100 " "	1/9
" 100 " "	2/-
" 80 " "	2/6
Bath 50 " "	3/-
" 36 " "	4/-
" 24 " "	5/-



LOOSE GOODS DEPARTMENT.

SPONGES IN SMALL PACKAGES. Fine Turkey. Fine Egyptian and Honeycomb. In 1st, 2nd and 3rd Qualities, Bleached or unbleached (state which in ordering). On strings of 1 dozen pieces, or loose in bags. At per doz.: 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s., 30s., 36s., 42s., 48s., 54s., 60s., 66s., 72s. Bleached Cuban. At per String or Dozen. Wool, Grass, Yellow and Fine. 1s., 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s.

NEW VELVET HONEYCOMB. Soft, Durable and large for money. Suitable for Toilet and Bath purposes.
 PRICES—Cut Shapes 3s., 4s., 6s., 9s., 12s., 15s., 18s., 21s., 24s. per dozen.
 " Natural Shapes 4s., 6s., 9s., 12s., 15s., 18s., 21s., 24s., 30s., 33s., 36s.
 " Strongly recommended where an inexpensive Toilet and Bath Sponge is required.

ANYTHING IN THE SUNDRIES LINE RENE HEYMANS LTD.

including ENEMAS, WHIRLING SPRAYS, SOOTHER FITTINGS, DOUCHE
FITTINGS, POWDER and VANITY PUFFS, BRUSHES, COMBS, POWDER PUFF
:: :: :: :: MANUFACTURING ACCESSORIES, Etc., Etc. :: :: ::

Our Paris House is always on the look-out for Novelties suitable for
manufacturing purposes, and we shall be glad to obtain articles for clients.

109, DOMINGO STREET, LONDON, E.C.1

Telegrams: Raab, Roermond.

Aromatic Chemicals
Synthetic Perfumes

Flower Oils
Essential Oils

CHEMICAL WORKS, ROERMOND

H. RAAB & CO., ROERMOND, HOLLAND.

Agent for the U.K.:

MR. ALFRED PAUL WHITE, 5 Water Lane, Gt. Tower St., London, E.C.3

Telegrams: Whaitap, Bilgate, London.

"GEISHA"



OBTAINABLE FROM ALL WHOLESALE FACTORS

H. C. STERN

12 Farringdon Avenue, LONDON, E.C.4

Telephone: Holborn 3140. Telegrams: Glastos, Lud, London



A DELIGHTFUL NECESSITY
PASTA MACK Richly perfumed,
Beautifies the complexion, Softens the Water.
2/- size 16/- per doz. Boxes (each containing 8 small Tablets). 3/6 size 28/- per doz. Boxes (each containing 8 large Tablets).

EFFECTIVELY ADVERTISED

Sole Agents for the United Kingdom.
WILLIAM EDWARDS & SONS,
14-18 NILE ST, CITY RD., LONDON, N.1.
Makers: H. Mack Succrs: Ulm C.D.



G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

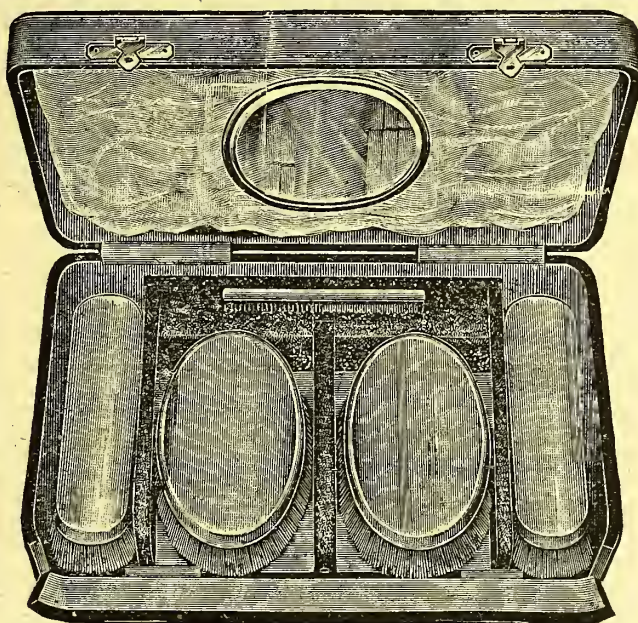
**BEST
BRITISH
BRUSHES**

Please write for full Particulars to—

75 Farringdon Road, E.C.1.

SILVER-MOUNTED TOILET WARE

LARGE
STOCK
OF
LADIES'
AND
GENT'S
TOILET
SETS,
MANICURE
SETS, ETC.,
SUITABLE
FOR
CHRISTMAS
PRESENTS.



SEND FOR
SPECIAL
XMAS
LIST
OF
SILVER,
ELECTRO
PLATE,
JEWELLERY
AND
LEATHER
GOODS.

ADOLPH SCOTT LTD. 124, 125, 126 GREAT HAMPTON ST.
BIRMINGHAM

ROWLAND'S MACASSAR OIL

A line it pays to stock.

P.A.T.A. 3/6, 7/-, 10/6.

THROUGH ALL WHOLESALERS.

A. Rowland & Sons, Ltd.
112 GUILFORD STREET, LONDON, W.C.1.

POWDER PUFFS

THE PRINCIPAL
MANUFACTURERS OF NOVELTIES.

WILLIAMSON BROS.

126 SOUTHWARK STREET, S.E.1.

HOOP 3419.



"ODENTIC" PLATE BRUSH

(Reg. No. 417637)

For ARTIFICIAL DENTURES

Manufactured by—

W. R. SPEER & SON (Estd. over 100 years)

Tooth-Brush Makers,

215 DALSTON LANE, LONDON, E.8.

Obtainable from all Wholesalers.

CHRISTMAS LINES

Large and varied stocks of BRUSH AND COMB SETS, MILITARY BRUSH SETS, MANICURE SETS, PERFUMERY, PERFUME SPRAYS, HANDBAGS, and other Toilet Articles suitable for the Modern Pharmacy.

SOLE WHOLESALE AGENTS IN SCOTLAND FOR POTTER & MOORE'S LAVENDER AND PERFUMERY:—

MUNRO, M'LAREN & SUTHERLAND, 17 Cadogan Street, GLASGOW.

Note.—There has been no change in management or co-partners of this firm.—A. B. M'LAREN, Sole Partner.

A GOOD WINDOW ATTRACTION !!

"SURCO" SHOW LEG Fitted with an Elastic Stocking

A BUSINESS BRINGER.

YOU WILL BE SURPRISED AT THE RESULT.

APPLY **SURGICAL HOSIERY CO., LTD., (Dept. B) Russell St., NOTTINGHAM.****WM. WARNE & CO. LTD.**

29 GRESHAM STREET, E.C. 2.

*India Rubber Manufacturers,*Surgical, Chemical, Domestic Articles, Syringes,
Water Beds, etc.

THE "SOMERSET" DOUBLE WARP

Crepe BandagesOldest British Manufacturers. Lowest Prices. Highest Qualities
Sole Manfrs.—F. W. Folkes & Co., Wallbridge Avenue Mills, Frome, Som.
London Agents—T. J. SANDERSON & CO., 50/51 Fore Street, E.C.**BOOKS FOR PHARMACISTS.**

Send us a post card and we will send you a 32-page catalogue of professional and business books for Chemists and Druggists. These are American books and will give pharmacists in other lands the secrets of the wonderful success of druggists in the U.S.

The SPATULA, BOSTON 14, MASS., U.S.A.

SURGICAL RUBBER GOODSPESSARIES,
ENEMAS, &c.

SOLE MANUFACTURERS "EVE" BRAND SINCE 1894

ADVERTISING BALLOONS AND NOVELTIES.

RUBBER MATS, &c.

X-L RUBBER CO., Altrincham, Cheshire.ENQUIRIES INVITED
Phone 709 Altrincham**TONIC**
FLESH - CLOTH

By tonic action preserves the skin and prevents wrinkles. A natural beautifier. Never gets "slimy." Bath size, 1s. 6d. Hand size, 1s.

GROUT & CO., LTD., GT. YARMOUTH

Stocked by all leading Wholesalers.

DR. SCHOLL'S TOE-FLEX

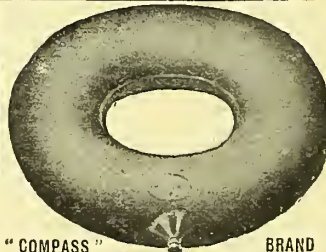
Corrects bunions, straightens crooked toes by mechanical action. Made of finest soft surgical rubber it gently restores the joint to its normal position. Three sizes, price 2s. each.

**Dr. Scholl's**
Foot Comfort Appliances

give immediate relief and permanent correction to every type of foot trouble. By linking up, through strong window displays, with "Scholl" National Advertising you will obtain your share of the tremendous demand we create, thereby greatly increasing your profits.

Write to-day for full particulars.

The SCHOLL MFG., CO., LTD., Granville Sq., W.C.1



"COMPASS"

BRAND

MAKERS

GEO. MACLELLAN & CO. LD.

Glasgow Ruhher Wks., Maryhill Glasgow.

London: 22 Newgate Street, E.C.1.
Sunderland 44 Borough Road.
Belfast: 77 Victoria Street.Newcastle-on-Tyne: 3 & 5 Queen St.
Cardiff: 58 James Street.
Birmingham: 44 Summer Row

One of our Wholesale Customers recently received the following:

"We want a 20-inch cushion, air-ring of a particular make. . . We have tried a great many and like best the 'Compass' Trade Mark. Will you scour the country for us (or send to Germany if necessary) for a 20-inch Ring Cushion with 'Compass' Trade Mark as enclosed."

When ordering
SURGICAL DRESSINGS
specify

“WARDLE”

—the name that stands for
super-quality

(Wholesale and Export only)

The Wardle Range includes:

Absorbent Lint, Boric Lint,
Bandages, Gauzes, Gauze
Tissue, Cotton Wools, Coiled
Wool, Grey Wools, Capsicum
Tissue, Sanitary Towels,
Dental Gauzes and Napkins,
- - Hygienic Squares. - -

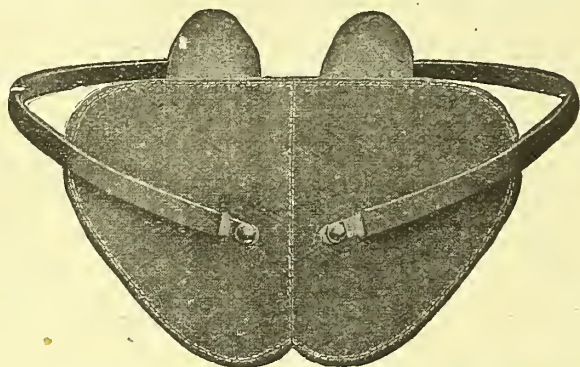
Bleachers of Bandage Cloths, Gauzes,
to the Trade. Also Absorbent Cotton.

THE WARDLE COTTON CO., LTD.
176/8 STOCKPORT RD., ARDWICK, MANCHESTER

Spinners and Manufacturers from the raw materials to the finished product

LONDON: 9 FORT ST. AVENUE, E.C. 2.

THE KINGSTON ABDOMINAL SUPPORTER



For General Weakness of the Abdominal Section
and an Efficient Support for the Lower Abdomen,
this appliance is invaluable.

In three qualities:

Basil and Chamois. Calf and Persian.
Calf and Lambskin.

R. H. HEWARD Co., Surgical Appliance Manufacturers, TWICKENHAM

CRÊPE VELPEAU BANDAGES AND ABDOMINAL BINDERS

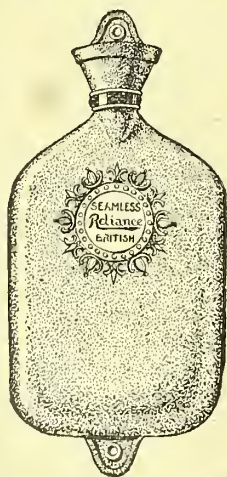
In Original French Carts.



The Most Perfect and Durable Crêpe
Bandages that have ever been produced.
In two qualities only.

Demand **CRÊPE VELPEAU.**

Reliance HOT WATER BOTTLE



ORIGINAL
SEAMLESS
MOULDED

ATTRACTIVELY
BOXED.

BRITISH MADE.

Moulded of one piece
of high grade rubber
without seam or join.

*The first and finest on
the market.*

"Standard" Golden Tan	RETAIL 6/9
Heavy Cherry Red	8/6
Reliance de luxe "Crimson" and Purple and Gold	10/6

RELiance RUBBER COMPANY,
212-213 UPPER THAMES ST., LONDON, E.C.4.

Telephone: City 2391.

Telegrams: Doorstop, Cent. London.

Zeal's CLINICAL THERMOMETERS

are

BRITISH MADE

by

BRITISH LABOUR

from

BRITISH GLASS

and

**GUARANTEED
PERMANENTLY ACCURATE**

G. H. ZEAL, LTD. 75 & 77 St. John Street
—LONDON, E.C.1—

Estd.

TRADE

MARK



1850

BERTONS

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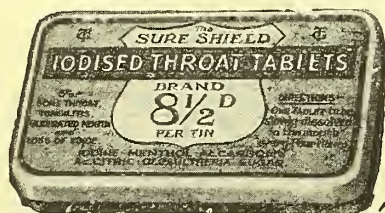
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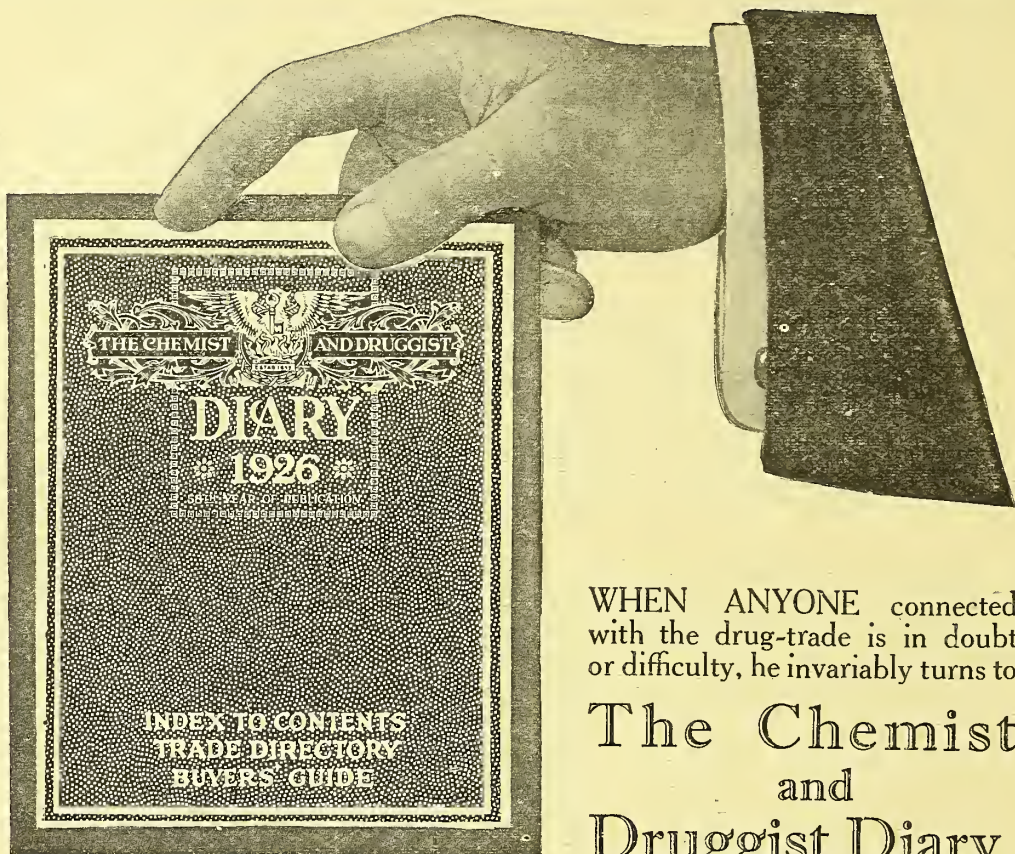
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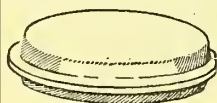
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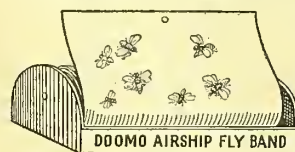
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New Books

Some Notes upon Pharmacy as a Career: Including a Review of the Revised Regulations of the Pharmaceutical Society. 8 $\frac{1}{2}$ x 6 $\frac{1}{2}$ in. Pp. 56. 1s. The Pharmaceutical Press, 17 Bloomsbury Square, London, W.C.1. [The first half of this booklet is an interesting account of the prospects in pharmacy for those who desire to take it up as a career. That it is written by one who looks through *couleur de rose* spectacles is no fault, and the writer is evidently an enthusiast. The salaries quoted are distinctly stated not to be standard wages, but when issued by the Pharmaceutical Society will, we think, be regarded as official. Much depends upon the man himself, and good assistants generally win for themselves a remuneration which, if it does not wholly satisfy their ambition, at least places them in the middle class of drug-trade wage earners. A useful list is given of important dates for students, referring to the coming in force of the new curriculum and regulations for examination. The last part of the booklet is taken up with the official version of the examination regulations. It is a useful publication for master chemists and students who have to consider the examination outlook.]

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Reduced Rates for Returned Empties

The railway companies announce that on and after November 1, 1925, substantial reductions will be made in the charges for carriage of returned empty boxes or crates, collapsed flat, with sections securely fastened together and not containing other packing material. Returned empties, which are extremely bulky in proportion to their weight, are, it appears, made to collapse flat in some cases, thus permitting of more economical loading of railway wagons. In these circumstances a reduced scale of charges will be made for this type of returned empty. Extracts from the existing scale and the reduced charges are given below:—

	Existing scale for returned empties, not collapsed, per cwt.	Returned empty boxes or crates, collapsed flat, sections fastened together, per cwt.
Miles	s. d.	s. d.
Exceeding 25 but not exceeding 50	0 9	0 8
" 50 " " " 100	1 3	0 11
" 100 " " " 150	1 8	1 2
" 150 " " " 200	2 0	1 4
" 200 " " " 250	2 5	1 7
" 250 " " " 300	2 9	1 9
" 300 " " " 350	3 0	2 0
" 350 " " " 400	3 5	2 2
Minimum charge	0 8	0 6

No less charge than as for 56 lb. This scale includes all stations except London, which is about 3d. per cwt. higher in each case.

Poisonings

The following cases of fatal poisoning, among others, have been recorded since our last report:—

At an inquest held at Bridgnorth, on October 20, on the body of Leslie D. Massey, aged ten months, it was stated that the child had had whooping cough, and a medical man supplied cough mixture, vaporising mixture, and a vaporising lamp. The mother of the child woke in the night and gave it a dose from the wrong bottle. In returning a verdict that death was caused accidentally, the coroner commented on the danger of bottles containing poison, and suggested that a bell should be attached to the cork of every such bottle.

An inquest was held at Chard, on October 23, on the body of Mr. C. D. Hart, retired chemist and druggist, whose death was recorded in the *C. & D.* of October 24 (p. 581). A domestic servant stated that Mr. Hart gave her an order to take to the chemist, and she brought him back a sealed bottle. About 5.30 the following morning he called her, and on going into the bedroom she found him in what appeared to be a fit. Mr. Norman M. Spafford, assistant to Mr. Saunders, chemist, produced an order from Mr. Hart for one ounce of tincture of nux vomica and also the poison-book. The Coroner: I see the poison-book is not signed. Witness: I have the signature on the order. Do you consider that sufficient?—Yes. We keep the signed order as our justification. You must not supply except on a medical man's prescription?—Mr. Hart was a qualified chemist. You may give this drug, practically a dose of poison, to anyone who signs his name for it?—Not necessarily. You must know the person who signs. The witness added that the tincture contained approximately $\frac{5}{8}$ gr. of strychnine, quite sufficient to cause death. Mr. Hart's medical man, who had attended him for ten years, said he had not prescribed tincture of nux vomica, and he did not think it was an appropriate medicine for the patient. Mr. Hart was a man with a good knowledge of drugs, and was always drugging himself more or less, and witness had tried to stop him. He was the last man to think of taking his life. Signs of strychnine were evident in the condition of the lungs, heart, and brain. The contents of the stomach gave a reaction with nitric acid for strychnine. The Coroner: Is it not curious

that a man accustomed to drugging himself should take an overdose? The doctor replied that in Mr. Hart's feeble condition, in the half-light of the early morning, he probably did not realise how much he poured out. In recording a verdict that "Death was due to an overdose of tincture of nux vomica, accidentally taken," the coroner said he wished to make it clear that he did not regard the chemist's assistant as in any way responsible for Mr. Hart's death.

Profit-Sharing Distribution

At the Ebor Rooms, York, on October 24, the first annual distribution was made under the scheme of profit-sharing instituted by Raimes & Co., wholesale druggists, a year ago. This scheme, which is a voluntary one, provides that half of the net profit for the year, vouched for by professional accountants, shall be allotted to the employees of three years' service and over, the whole of whom share in due proportion. After details of the scheme had been again explained, felicitous speeches were made by the partners, Mr. Samuel Scruton, J.P., Mr. W. C. Birks, and Mr. A. Scruton, the senior partner (Mr. S. Scruton) remarking that it was just over sixty-six years since he became associated with the firm as a turnover apprentice, and referring to the great changes in conditions of employment during that time. After the distribution, acknowledgment was made in complimentary terms by Mr. H. Buttery and Mr. W. V. Hargrave (of the travelling staff), Mr. G. Howard (general manager), Mr. G. Watt and Mr. F. de Lacy (on behalf of the general staff), followed by a hearty vote of thanks.

Bolton Shopping Week

At the recent window-dressing competition at Bolton, organised during Shopping Week by the local Chamber of Commerce, the silver cup was won by Mr. Stanley



Haywood, dispensing chemist. An interesting feature is that the display is chiefly of Bidwell's tooth-brushes as British products. An enlarged model of a tooth-brush occupies a prominent position. (*C. & D.*, October 24, p. 568.)

Birmingham

Much sympathy will be extended to Mr. Laurence C. Tipper (B. C. Tipper & Son, Balsall Heath) on the death of his widowed mother, at the age of ninety-two.

At Birmingham Police Court, on October 20, Charles E. Sherman, described as a chemist's assistant, was sentenced to four months' imprisonment for stealing postal orders from a post office (*C. & D.*, October 17, p. 531).

A successful smoking concert was held at the White Horse Hotel on October 26 by the local section of the Institute of Chemistry. Dr. Wardlaw occupied the chair. Mr. C. J. House, B.Sc., acted as M.C., and Mr. F. A. Thomas (Bellamy and Wakefield) contributed several songs.

The first of a series of lectures arranged by the Birmingham School of Pharmacy Students' Association will take place at the Imperial Hotel on November 5, when Dr. Stanley White will give an address on "Standardisation." Past and present students of the school are invited to attend.

The fifth interim report of a committee of the Institution of Civil Engineers, which for the past nine years has been investigating the deterioration of structures of timber, metals and concrete in sea water, includes the research work of Dr. J. Newton Friend, head of the chemical department of the Municipal Technical School, on preservative coatings for ferrous metal.

In his latest quarterly report, just issued, the city analyst (Mr. J. F. Liverseege, F.I.C., Ph.C.) states that at five shops, when carbonate of magnesia was asked for, the genuine article was supplied, though in one case it was labelled "Magnesia." The B.P. requires calcined magnesia not to lose more than 1 per cent. of its weight when heated to dull redness. That limit he considers to be unduly stringent for samples sold in retail shops, but suggests that the loss should not be more than 5 per cent. In some analyses the loss in weight of the sample was over 30 per cent. Packing in cardboard boxes proved unsatisfactory, as it gives little protection to the magnesia.

The Home Secretary has issued an Order, "Dangerous Drugs (Hospital Exemption) No. 10 Order (1925)," (Stationery Office, 2d.), exempting the Birmingham and Midland Ear and Throat Hospital from the operation of the Regulations made under the Dangerous Drugs Act, 1920, subject to the conditions (1) that Schedule I of the Dangerous Drugs (Hospital General Exemption) Order (1924) is followed, and (2) "the sole or head dispenser" is (a) the holder of an assistant's certificate of the Society of Apothecaries, or (b) a compounder recognised by the Army Medical Staff Corps or the R.A.M.C., or (c) a person registered under "the Pharmacy Act (Ireland), 1875, and the Pharmacy Act (Ireland), 1875, Amendment Act, 1890," as "qualified to compound medicinal prescriptions," and has had not less than three years' experience as "sole or head dispenser" at the Hospital, or at an institution recognised under No. 16 of the Regulations referred to.

Liverpool

Mr. J. L. Hirst was re-elected President of the Liverpool Chemists' Association at the opening meeting of the winter session, in the Royal Institution, Colquitt Street, on October 21.

Sir Hugh Clifford, G.C.M.G., has accepted the invitation of the West African Sections of the Liverpool, London and Manchester Chambers of Commerce to be their guest at dinner, before he sails to take up his appointment as Governor of Ceylon, in Liverpool, at the Midland Adelphi Hotel, on November 5. Sir Hugh Clifford was entertained to a farewell luncheon by members of the Royal Colonial Institute in London on October 28.

Sheffield

A co-operative society drug department has been opened at Beighton.

The officers of the Sheffield Union entertained Mr. H. Antcliffe, member of the Pharmaceutical Society's Council, to dinner at Stephenson's Restaurant on his leaving the poor-law service after thirty-four years.

The annual hot-pot supper of the Sheffield Pharmaceutical and Chemical Society was recently held at Atkinson's Restaurant. Mr. F. Hindle, President, occupied the chair. After supper, an excellent musical programme was supplied by Messrs. Hugh Cross, Hodder, Vincent and H. B. Hammond. On the motion of the President a hearty vote of thanks was accorded to the artists. A collection on behalf of the Benevolent and Orphan funds was taken.

Miscellaneous

BRITISH INDUSTRIES FAIR.—It is announced next year's British Industries Fair (February 15-26) will be open to the public after 5 p.m. each day and from 1 p.m. to 8 p.m. on Saturday, February 20.

FIRE.—An outbreak of fire, attributed to spirit vapour coming in contact with a flame, occurred recently at the premises occupied by Major & Co., Ltd., manufacturing chemists, 20 St. Thomas's Street, London, S.E.1. The damage was not of an extensive nature.

WINDOW-DRESSING AWARDS.—In the window-dressing competition, in connection with Aldershot shopping week, the first prize in the class open to chemists was awarded to Boots, Ltd., Wellington Street, and the second and third prizes to Allen & Lloyd, Ltd., Wellington Street and High Street.

furnisher, claimed from Mr. H. D. Hayward, chemist and druggist, Birmingham Road, the sum of £80 12s. 6d. in respect of rent, and the defendant counter-claimed for £255 12s., was mentioned to the judge. Mr. Ward, who appeared for the plaintiff, said it had been agreed that judgment should be given for the plaintiff on both claims on terms agreed upon, with costs. Judge Tebbis assented.

POISON IN CHOCOLATES.—At Gloucester Assizes, on October 26, Annie Davenport was charged with attempting to cause strychnine to be taken in chocolate by Agnes Price, with intent to murder her (*C. & D.*, October 24, p. 568). The evidence outlined in the lower court was given in detail. The jury returned a verdict of "Guilty" on the count of sending poison "with intent to anger, grieve, and annoy," but "Not guilty" of intent to murder. Sentence of eight months' imprisonment was passed by the judge.

COMPETITION IN TOOTH-BRUSHES.—The committee appointed by the Board of Trade to inquire into the application of the British Brush Manufacturers' Association for a duty on imported brooms and brushes, under the Safeguarding of Industries Act, held a further sitting on October 26 at the Ministry of Health. Mr. R. Addis, of R. Addis & Son, tooth-brush manufacturers, Hertford, produced samples of Japanese tooth-brushes which, he contended, entered into unfair competition with British-made brushes. He said that, unlike the British manufacturers, the Japanese manufacturers put the best end of the bristles outside the brush, which caused the brush to look better, but the result was that the bristles came out sooner. The bristles of the Japanese brushes came from China, and were dressed in Japan. Replying to Mr. Comyns Carr, K.C., who appeared in opposition to the application on behalf of the Imports Group Committee of the London Chamber of Commerce, Mr. Addis said that the year 1920 was the best year the brush trade had ever had. His own business had gone on increasing ever since. The inquiry was adjourned until November 2.



STOCKPORT ART GALLERY

Erected as a War Memorial on a site given by the late Mr. Samuel Kay and the late Mr. Thomas Kay, inventors of Kay's Essence and founders of Kay Brothers, Ltd. The Stockport Municipal Technical Schools occupy part of the same site. The Art Gallery was opened by Prince Henry on October 15.

FOOTBALL.—In their recent matches The British Drug Houses Football Club has defeated (4-1) the A.E.C. (second) and been beaten by Molin's Athletic, Minerva, and B.D.V.—Playing away, at Hendon, on October 17, Eno Recreation Club beat T. D. Sloan, Ltd., by 11 goals to 1. Simmons scored seven of the winners' goals.

STRIKE AT FACTORY.—On October 23, fifty employees of Robert Blackie, manufacturing chemists, Tower Bridge Road, London, S.E., came out on strike. It is stated on behalf of those who have struck that pay and working conditions are unsatisfactory, and on behalf of the firm that the employees' union has been bringing pressure to bear on non-unionists.

INQUEST.—At Bridge, Canterbury, recently, an inquest was held on the body of Mr. James Barron, chemist and druggist, who had been found dead in his shop by Mrs. Barron. Giving evidence, the widow said she had no reason to think that her husband had not been in perfect health lately. The *post-mortem* examination, however, disclosed, said a medical witness, the presence of lobar pneumonia and dilatation of the heart. A verdict of "Death from natural causes" was returned.

ROYAL COMMISSION ON NATIONAL HEALTH INSURANCE.—The forty-second meeting of the Royal Commission on National Health Insurance was held at the Home Office, Whitehall, on October 22 and 23. Evidence was given by Mr. J. G. F. Price, principal assistant secretary, Ministry of Labour; Sir Walter Kinnear, Controller of the Insurance Department of the Ministry of Health; Mr. L. G. Brock, principal assistant secretary; and Dr. J. Smith Whitaker, senior medical officer of the Ministry.

IN THE COURTS.—In Walsall County Court, on October 21, a case in which Mr. E. S. Fenton, house

French News

From the "C. & D." Paris Correspondent.

AN OPPONENT OF SUNDAY CLOSING.—Just behind the dome of the Invalides, in the Avenue de Breteuil, stands a modest but neat little pharmacy, of which the show windows are full of legal documents, newspaper cuttings, letters and cards of sympathy. M. Peyre, the owner, runs the business himself, and resents being called upon to close on Sundays. The new decree, he considers, is an infringement of the liberty of the citizen, and he has refused to comply with its requirements. He has accordingly been summoned and fined twenty-five francs, which he declined to pay, so a "huissier" called upon him, accompanied by a commissary of police, to distrain for the amount due. M. Peyre was away when they arrived, and, by the time he returned, the "huissier" had listed most of the drawing-room furniture, which would safely cover the amount due, and leave even a handsome margin. Protected by the police, he proposed to continue, but M. Peyre produced a document showing that he had appealed to a higher court. The judgment, therefore, was not definite. The "huissier" accordingly retired, leaving one more legal document to add to the collection already on view.

The Lancashire Insurance Committee has been recommended by a subcommittee to call a conference of representatives of public health, Insurance and Panel Committees and other bodies in Lancashire respecting the Spahlinger treatment.

Irish News

Pharmaceutical Society of Ireland

The following are the results of the October examinations:—

PHARMACEUTICAL LICENCE EXAMINATION.—Passed with Honours: Andrew Maher (Thomas M. Dromgoole, Thomas Healy). Passed, in order of merit: Thos. H. M. Watson, Sarah Jane Kelly, Francis Cotter, Una W. Thompson, John G. Kennedy, Albert F. Brown (Rosina Branagan, Malachy J. Hughes), Edmond D. Maguire, Alice B. Hayes. Fourteen candidates were rejected.

PHARMACEUTICAL ASSISTANTS' EXAMINATION.—Passed: Joseph Anthony Kissane, Martin Malone. One candidate was rejected.

REGISTERED DRUGGISTS' EXAMINATION.—Passed: (Dublin) William F. Herlihy, Michael J. Kieran, Richard McHugh, Patrick J. Dougan, John Gallagher; (Belfast) Spencer Adair, Samuel Ardis, John Blackstock, John J. Hannawin, Robert Harbinson, James Kieley, Henry George Kennedy, Samuel Miller, Samuel G. Morrison, Thos. J. Moffatt, Robert McGrath, Robert Young, Maud Stevenson, Fredk. S. Williamson, Thos. H. Hutchinson, Wm. Mayne Elliott, Frances F. G. Drennan. Thirteen candidates were rejected.

Brevities

At a meeting of the Derry Corporation the Education Committee recommended the expenditure of a sum not exceeding £20 on the provision of cod-liver oil emulsion for under-nourished and delicate elementary scholars during the winter months 1925-26.

Baker & Wright, Ltd., chemists, Patrick Street and Princes Street, Cork, which business has been established for close on 100 years, are disposing of the retail part, and will concentrate on their wholesale branch at Academy Street, Cork.

Urging the resumption of the Dundalk and Newry Steam Packet Company's sailings between Scotland and Newry, Mr. J. E. Connor, M.C.P.S.I., said at a meeting of the Newry Chamber of Commerce that without these sailings Newry was becoming an inland town.

At Mallow, Judge Kenny made a decree for £2,013 in favour of Mr. A. H. Jones, Ph.C., Doneraile, for furniture destroyed in Newtown House in 1922. The same applicant and Mr. S. O. de Fleury were granted a decree of £4,250 for the destruction of Newton House.

The delay on the part of the Northern Home Office in announcing the constitution of the new Pharmaceutical Council for Ulster is causing considerable comment in trade circles. It is understood that the selections for the various branches set out in the Act have been made, but that the delay is due to the fact that the President has not yet been chosen.

Evans Sons Lescher and Webb, Ltd., Liverpool, have written to a number of Board of Health bodies in the Free State offering to supply drugs to the dispensaries and depôts of the counties concerned at a discount of 25 per cent. off the standard prices. When the letter was discussed at the co. Wexford Board, the secretary said the firm had secured the contract under the Government combined purchasing scheme (*C. & D.*, October 17, p. 532). The Southern Drug Co., Wexford, who tendered for the local contracts at 15 per cent. discount, agreeing to deliver the goods to the dispensaries and collect the empties, was awarded the contract.

Belfast

At an inquest held recently on the body of John M. Firth, aged twenty-nine, publican, Belfast, found dead on the banks of a river, near the city, medical evidence showed that death was due to hydrochloric acid poisoning, and a verdict of suicide while temporarily insane was recorded.

Major H. R. Haslett has resigned his commission in the Territorial Army, Belfast University Contingent (Senior Division), but retains his rank. Major Haslett is a member of the firm of J. & J. Haslett, Ltd., wholesale druggists, North Street, Belfast, and was dangerously wounded while serving during the war with the 9th Batt., Royal Ulster Rifles.

At the Licensing Court, on October 22, Robert Dale, chemist, Newtownards Road, was fined 40s. for selling methylated spirit to John Jamison, Station Street, a person not known to him. The case against Jamison, who was charged with making a false statement, was dismissed. Mr. Dale told the Court that he had decided to give up the sale of the spirit.

At the annual meeting of the Belfast Chamber of Trade held on October 26, Mr. W. J. Hardy, Ph.C. (Davidson & Hardy, Castle Place), was elected President for the ensuing year. Mr. Hardy is the second member of the trade to fill this office, Mr. J. C. Culbert having been President some years ago. Mr. Jas. Tate, M.P.S.I., was elected a member of the Executive Committee.

Dublin

At a recent meeting of the council of the Dublin Industrial Development Association dissatisfaction was expressed at the action of the Local Government Department in giving the contract for drugs to a Liverpool firm (*C. & D.*, October 17, p. 532). It was pointed out that the cost of delivery chargeable to the local bodies would probably be more than the amount of the difference between the tender accepted, and the result of the placing of the tender abroad would be increased unemployment in Ireland.

Scottish News

Brevities

William Hill & Co., 136 Renfield Street, Glasgow, have been appointed Scottish agents for Phillips' Milk of Magnesia and Danderiae.

Among the chemists taking part in the Scottish municipal elections are Messrs. R. Aitken, Dunbar (unopposed); A. G. Laidlaw, Lockerbie (unopposed); M. H. Stone, Glasgow; D. Skinner, Oban; G. Thomson, Campbelltown.

At the October meeting of the Ayr Town Council a petition signed by thirteen chemists requesting an amendment of the existing closing hours was received. The Council decided that the hours should not be altered except at the expense of the chemists.

A petition asking that asphalt be used for resurfacing the thoroughfares has been presented to Haddington Town Council. Speaking in support of the petition, Sheriff-Substitute Wilson, chemist and druggist, said the vibration caused by the heavy motor traffic was so bad that bottles on his shelves were gradually moved forward and were apt to topple over.

Edinburgh

A chemist who was recently on a visit to the city writes: "There are still many chemists who give their complete window space to carboys."

At a meeting of the Royal Society of Edinburgh, on October 26, the President, Sir Alfred Ewing, K.C.B., F.R.S., delivered an address on "Some of the Modern Aspects of Physical Research."

The first whist drive of the season under the auspices of the Edinburgh Chemists' Golf Club will be held on November 25, at Vincent House, 78 Great King Street. Tickets (4s. 6d. each) may be obtained from Mr. G. P. Cooper, secretary; Mr. J. Finlay, secretary of whist drive; or any member of the committee.

At a dinner and smoking concert in the Imperial Hotel, Edinburgh, on October 23, Mr. S. Jamieson, who recently retired from the representation in Scotland of the speciality branch of the Anglo-American Oil Co., Ltd., was entertained, and during the evening was presented with wallets of Treasury notes by the staffs of the Glasgow and Edinburgh branches of the company. The presentations were made by Mr. W. M. Taylor (Glasgow) and by Mr. H. McKenzie (Edinburgh).

Fife

There has been a good demand for fly-papers of late.

More and more chemists are taking up optical work, and several are advertising that optical benefits are now obtainable under the National Health Insurance Act.

At a recent meeting of the Leslie Literary Society, Mr. W. Smart, J.P., chemist and druggist, Buchhaven, gave a lecture on the preparation and delivery of an address.

Colonial and Foreign News

CHEMICALS IN TURKEY.—The general direction of the Turkish customs has recently published the figures for the month of September 1340 (1924), during which month imports of prepared colours, dyes, chemical products, pharmaceutical goods, drugs, perfumes and resins amounted to 1,199,129 kilos, value £T.561,333, while exports totalled 1,864,527 kilos, value £T.1,079,687.

SUGAR MONOPOLY.—The Turkish National Government aims at monopolising certain branches of industry, and with this object in view has granted to the Turkish joint stock company of sugar factories of Constantinople and Thrace the sole concession, for a period of twenty-five years, for the manufacture of sugar in the provinces of Constantinople, Chatalja, Rodosto, Kirkla and Eli.

ORIGINAL PACKAGES FOR ESTHONIA.—The Esthonian Government publishes from time to time a list of compound medicines, including proprietary preparations and pharmaceutical specialties, which may be admitted into the country. A recent decree prohibits henceforth the importation in bulk of these licensed products, since it stipulates that the preparations included in these lists may be imported only in original packages, i.e., in the form in which they are actually to be sold to the purchaser. Pharmacists, however, are permitted to remove the wrapper, etc., or to put up the contents in another container, if this is specified by the doctor on the prescription.

DENATURED BAY RUM FOR BRITISH GUIANA.—A notice issued by the Comptroller of Customs and the Chief Commissary of British Guiana stipulates that no bay rum will be admitted unless denatured as follows:—To every 100 gallons of spirits calculated as spirits at proof used in the manufacture of bay rum or other barber's alcoholic preparation, 3 lb. of liquid extract of *Ipecacuanha* (*Extractum Ipecacuanhæ Liquidum B.P.* or of *Fluid-Extractum Ipecacuanhæ U.S.P.*), or $2\frac{1}{2}$ lb. of *Ipecacuanha* root (*Ipecacuanhæ Radix B.P.* or *Ipecacuapha U.S.P.*), or 5 lb. of quassia fluidextract (*Quassie Fluidextractum U.S.P.*) [This does not appear in the U.S.P., IX and X.—EDITOR] shall be added, and so in proportion for any greater or lesser quantity of spirits.

RUSSIAN MEDICINAL PLANTS.—The bureau for the export of medicinal plants attached to the Soviet commissariat for foreign trade has created a series of organisations throughout Russia for the drying and treatment of plants grown or collected by the peasants and agricultural associations. The bureau reports that during the past months the amounts of medicinal plants collected and exported show a very considerable increase, and it is proposed to organise on a large scale the export of a wide range of drugs during the coming year. Among the drugs to be exported figure: Marshmallow, anise, gentian, mustard, stramonium leaves and seeds, buckthorn bark, lycopodium, chamomiles, ergot, liquorice root, cantharides, peppermint, valerian, and fennel.

RUSSIAN ARSENIC.—There is a growing demand for arsenical insecticides in Russia, and to meet the large requirements for agricultural uses steps are now being taken to exploit the deposits of arsenic in the Urals, instead of those in the Caucasus. Recently the Uralsoloto Trust treated, as a trial, 11,000 tons of ore from the Kotshgar gold mines, the richest in the Urals, extracting 110 kilos of gold and 900 tons of arsenic, the latter at a cost of 33 roubles per ton. Analyses showed that this ore has an average content of 12 grams of gold and 100 kilos of arsenic per ton. The Trust proposes for the present merely to convert the ore into crude arsenious oxide, which will be supplied to chemical works in the U.S.S.R. as the basis for the manufacture of calcium arseniate and other compounds.

INTERNATIONAL UNION OF PHARMACY ASSISTANTS.—The first congress of the recently created International Union of Pharmacy Assistants was held in Vienna, on October 9 to 12, attended by delegates from Austria, Bulgaria, Germany, Jugo-Slavia, Poland, Czechoslovakia, and Hungary. At the meetings, in the course of which a number of interesting papers on subjects of general interest were read, it was emphasised that the aim of the Union is not only to promote the special interests of assistants, but also those of the pharmaceutical at large.

The object of the congress was to enable the participants to make themselves acquainted with the conditions prevailing in other countries and to select the best features in each as a guide towards the attainment of further improvements in the status of pharmacists.

MEXICAN PERFUME INDUSTRY.—The Mexican Government is offering many inducements to foreign industrial enterprises contemplating the establishment of works in that country, and to promote this object, permits the importation of the necessary machinery and materials for the erection of manufacturing plants. In this connection attention is drawn to the fact that Mexico in its varied flora possesses an inexhaustible source of supply of raw materials for the production of perfumes. The Department of Industry has published particulars regarding the aromatic plants to be found in the various States of the Republic, thus in the States of Oaxaca, Guerrero, Morelos, and Puebla over 5,000 kilos of linaloe oil are now being produced annually, and with modern methods the production might easily be considerably increased. Storax is collected in all parts of Mexico, particularly in the States of Chiapas, Tabasco, and Veracruz, and is in good demand.

PRESCRIPTIONS FOR DANGEROUS DRUGS IN SWITZERLAND.—In the explanatory notes issued by the Swiss Federal Department of Health and by the Swiss Association of Pharmacists to the recent law regulating the traffic in narcotics, it is stated that since the country is largely dependent on the tourist traffic, it is not deemed advisable to refuse to dispense prescriptions calling for scheduled narcotics written by foreign doctors and presented by travellers, as is apparently being done in some other countries. These prescriptions are to be treated the same as if they emanated from a Swiss doctor, and provided the amounts prescribed are not so high as to raise suspicion that there is a possibility of abuse, they may be dispensed once only. To prevent the prescription being repeated it must be stamped by the pharmacist, whereupon it may be returned to the foreign customer and not retained, as is otherwise required, a note to this effect being made against the copy in the prescription book. Should the customer wish to have the prescription again repeated, then the signature of a Swiss doctor becomes indispensable.

FRANCO-ITALIAN AGREEMENT ON SPECIALITIES.—Numerous difficulties have arisen during the past years with regard to the importation of French proprietary medicines into Italy, and *vice-versa*, chiefly attributable to the interpretation by the Customs authorities of each country of the term "pharmaceutical speciality." Recently, the French and Italian Governments reached an agreement to the effect that representatives of manufacturers of this category of preparations of both countries should meet and formulate proposals for the consideration of the two interested Governments. As a result of a conference recently held in Paris, the French and Italian delegates agreed on a definition of what constitutes a pharmaceutical speciality for the purpose of clearance through the Customs of either country, and drew up a list of French and Italian preparations answering this description. The French delegates also suggested that the Italian Government should introduce a 15 per cent. *ad valorem* duty on these preparations, as provided in the French Customs tariff. This duty would be levied on the sale price of the preparation after deducting the discount allowed to retailers. Further, the delegates agreed that free samples and trial packages should pay a reduced rate of duty. The agreement is to enter into force as soon as it is ratified by the two Governments. This agreement is interesting for the fact that it has been reached by the representatives of the industry directly affected, without the intervention of any Government officials. The duty in Italy on medicinal specialities is gold lire 3.75, and on "secret remedies" gold lire 600, per kilo; the latter term is interpreted by the Italian Customs officials as being applicable to all preparations which do not bear a label stating the composition of the product, or if the formula contains one or more substances not included in the Italian pharmacopœia. In many cases the duty on medicinal specialities is calculated on the basis of the ingredients, and consequently the chargeable duty is often considerably higher than the above-mentioned general rate.

Legal Reports

Non-Renewal of Dentists' Licences.—At North London Police Court, on October 14, Woolf Fingard, High Street, Kingsland, E., pleaded "Guilty" to practising as a dentist without being registered. It was stated that four signs outside the defendant's premises bore the name "S. Fingard." The defence was that the trouble had been caused by carelessness, due to worry. A fine of £2, with £3 3s. costs, was imposed.—At Tower Bridge Police Court, on October 23, Jerome Frazer, Waterloo Road, S.E. (but stated to be in Ireland), was fined £5 5s., with £10 10s. costs, for a similar offence.

Weak Calomel Ointment.—At Bow Street Police Court, London, on October 26, Mr. Horace Bland, Ph.C., and Mr. D. C. Jones, trading as Curtis & Co., 315 High Holborn, W.C., were summoned for having sold at that address calomel ointment which was deficient in mercurous chloride to the extent of 42.5 per cent. The analyst's report showed that it contained 11.5 per cent. of mercurous chloride and 88.5 per cent. of benzoated lard. Mr. H. Glyn-Jones, barrister, for the defence, said he was prepared to admit the correctness of the analysis and to plead "Guilty" to the summons. In this particular instance the defendants had customers for the 10 per cent. ointment, and supplied it at that strength when ordered. Three days before the sample in question was purchased, the old manager of the shop left and a new manager came in. Being asked for calomel ointment he served some of the 10 per cent. strength. The defendants had carried on their business at High Holborn and at another address for fifteen years without any complaint. The magistrate imposed a fine of £7.

A Cheque Transaction.—At West Kent Quarter Sessions, on October 22, Viscount Torrington was charged with having obtained from Mr. H. C. H. Oliver, chemist and druggist, West Malling, the sum of £5 in money and goods by false pretences, with intent to defraud (*C. & D.*, October 17, p. 535). Mr. A. L. B. Thesiger prosecuted, and Sir Walter Schwabe, K.C., appeared for the defendant, who pleaded "Not guilty." Mr. Oliver gave evidence, and in cross-examination said that he got the warrant for Lord Torrington's arrest, although he told the magistrate that he had received the money. Counsel: Are you being paid by the Press for this prosecution?—No, not one iota. Mr. Oliver stated, that he had said: "I am no respecter of persons, and I am going to show him (Lord Torrington) up." Lord Torrington, in evidence, said that he had no intention to defraud Mr. Oliver. He telegraphed the money due. Cross-examined, Lord Torrington said he thought the cheques would be met, otherwise he would not have drawn them. Lady Torrington, in the witness-box, said she disagreed with Mr. Oliver as to the date on which it had been arranged that the matter would have to be settled. The jury, after five minutes' deliberation, found Lord Torrington "Not guilty."

Bankruptcy Reports

Re Henry Charles Stanhope Bedding, 345 Woolwich Road, Charlton, late of 47 Old Woolwich Road, Greenwich, "chemist."—The following are among the creditors (*C. & D.*, October 10, p. 508): Ashton & Parsons, Ltd., £101; Butler & Crispe, £448; W. J. Bush & Co., Ltd., £12; International Chemical Co., Ltd., £11; Potter & Clarke, Ltd., £32; Thames Chemical Co., Ltd., £10; Yadil, Ltd., £30; A. Wander, Ltd., £22.

Re J. D. Bishop & Co. (John Duval Bishop and Stanley William Thorp, trading as), drug and chemical merchants, 22-3 Great Tower Street, E.C.—We reported in our last issue that on October 20 these bankrupts applied at the London Bankruptcy Court for an order of discharge, and that it was suspended for two years. We now learn that subsequently the bankrupts obtained an order for discharge subject to judgment for £50, to be satisfied by an immediate cash payment. This payment, we are informed, has been made.

New Companies and Company News

P.C. means Private Company and **R.O.** Registered Office.

BATTING & Co., LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemists, druggists, dispensers, drysalers, etc. **R.O.**: Kimberley House, 14-17 Holborn Viaduct, London, E.C.1.

A. E. SINDEN, LTD. (P.C.).—Capital £1,000. Objects: To acquire the business of a drug store and dealer in photographic and wireless telegraphic goods now carried on by A. E. Sinden at Stanford Terrace, Hassocks, as "The Station Pharmacy." The directors are: A. E. Sinden and A. E. Fuller.

WHEATLEYS CASH CHEMISTS, LTD. (P.C.).—Capital £800. Objects: To carry on the business of chemists, druggists, patent medicine vendors and proprietors, stationers, dealers in photographic goods, opticians, etc. The directors are: A. R. Wheatley and Mrs. Emma Wheatley. **R.O.**: 54 Northgate Street, Gloucester.

INHALING DRUG AND APPARATUS COMPANY, LTD. (P.C.).—Capital £250. Objects: To carry on the business of manufacturers and sellers of drugs, medicines and medicinal and other preparations, chemists, druggists, surgical and medicinal instrument and apparatus manufacturers, etc. **R.O.**: 30 Grosvenor Place, London, S.W.1.

WM. SMITH (COLCHESTER), LTD. (P.C.).—Capital £3,000. Objects: To acquire the business of chemists and druggists now carried on by W. G. Smith, F. R. Smith, H. F. Smith and S. J. Moss at 51 St. Botolph Street, Colchester, as "W. Smith." The directors are: W. G. Smith, F. R. Smith, H. F. Smith and S. J. Moss.

COLEMANS PHARMACIES, LTD. (P.C.).—Capital £500. Objects: To acquire the assets of the business of W. G. Coleman at 51 Caudwell Street, Bedford, and to carry on the business of chemists, druggists, drug store proprietors, opticians, dealers in photographic and wireless goods, etc. The directors are: W. G. Coleman and Mrs. L. J. Coleman. **R.O.**: 51 Caudwell Street, Bedford.

SLOUGH PROPRIETARY, LTD.—Capital £100. Objects: To acquire by purchase, exchange or otherwise from an American Corporation known as the Foreign Investment Company, the whole or any part of the assets of that company, and in particular, the shareholding and interest of that company in any other company now or hereafter carrying on or interested in the business known as "Horlicks' Malted Milk," to acquire all or part of the business or property of any person, firm or corporation carrying on or interested in any similar business, etc. The directors are: Sir Ernest B. Horlick and Lt.-Col. J. N. Horlick, M.P. **R.O.**: Stoke Poges Lane, Slough.

COMPANY OF BIOLOGISTS, LTD.—Capital £1,000. Objects: To acquire the copyright of the "British Journal of Experimental Biology," and the business relating to the publication and sale thereof and certain of the assets, to adopt an agreement between F. A. E. Crew, J. S. Huxley, L. T. Hogben, of the first part, Oliver and Boyd of the second part, and this company of the third part. The directors are: G. P. Bidder, L. T. Hogben, D.Sc., Prof. J. S. Huxley, J. T. Saunders and F. A. E. Crew. **R.O.**: Cavendish Corner, Cambridge.

ORANGE CRUSH Co. (LONDON), LTD. (P.C.)—Capital £10,000. Objects: To adopt an agreement between the Orange Crush Co. (incorporated in Illinois, U.S.A.) and Butler's (London), Ltd., on behalf of the company, to acquire certain patents, trade marks and trade names for the purpose of manufacturing and vending products of the Orange Crush Co., including "Ward's Orange Crush," "Ward's Lemon Crush," "Ward's Lime Crush," "Bobolink Grape," "Bobolink Cherry," "Bobolink Ginger Ale," "Orange Crush Ice Cream Concentrate," and "Orange Crush Soda Fountain Concentrate," etc. Directors: A. S. Butler and S. A. V. Butler. **R.O.**: 124-7 Minorities, London, E.1.

DUBARRY PERFUMERY Co., LTD., announce an interim dividend of 20 per cent. on the ordinary shares, against 15 per cent. in the previous year.

Analytical Control

Its Place in Pharmacy

A paper read before the Liverpool Chemists' Association at the Royal Institution, Colquitt Street, Liverpool, on October 21, by Mr. T. Edward Lescher, O.B.E.

CERTAIN phases of evolution in pharmacy during modern times were dealt with, Mr. Lescher first referring to the influence exercised by the British Pharmacopœia of 1898, which brought a considerable increase in the standardisation of pharmaceutical preparations, with more detailed methods of assay and closer definitions of limits of impurities; in this respect it was a great advance, from a point of view of scientific method of testing compared with the 1885 Pharmacopœia. At the same time this had its repercussion in taking out of the hands of the pharmacist the manufacture of these standardised preparations, as the processes of standardisation in many cases were complicated and lengthy. The British Pharmaceutical Codex and the British Pharmacopœia 1914 with the natural increase in the tests for identity and purity, and assay work, accentuated this state of affairs. Those who lament this will realise that it is the penalty that has to be paid for advancement in science in an age of industrial specialisation. What spare time the pharmacist had for manufacturing practically departed with the advent of the National Insurance Act, under which, whatever the views that may be taken as to the terms of service, the pharmacist did come into his own, namely, the assuming of his proper position as the dispenser of medicines for the nation. Thus the difficulties created by elaborate standardisation tests, and the filling up of his time by new duties, have more and more made the pharmacist dependent upon manufacturing houses. Another factor in this evolution, which has affected even the packing of his own specialties, is the greater number of articles which the pharmacist now sells to the public; the whole trade in toilet articles and perfumery has undergone a complete change. Pictures are sometimes put before us of the position of pharmacy on the Continent, but it may be claimed for the British pharmacist that he has shown considerable business acumen in catering in a thorough manner for the business in toilet goods, the extension of which has been a feature of recent years, and a large proportion of which trade he has secured. Another contributory cause may have been the activities of local authorities under the Food and Drugs Acts; the pharmacist, should anything go wrong, is in a more comfortable position when he can fall back upon the warranty given by his manufacturer, than if he had to confess himself as the maker of the offending product. Whether a total abdication of personal responsibility for control over the purity of the articles he sells is altogether wise, from the pharmacist's point of view, is not for me to say, but the demand in business to-day for a general warranty, and the readiness with which rights under such warranties are exercised, should make the examination of the control which the manufacturer exercises a matter of considerable importance. The delegation by the pharmacist to the manufacturer of functions for which his training has fitted him should logically imply the exercise of a critical faculty, as if duties are delegated, there remains an inherent responsibility to ensure that such duties are fully carried out.

THE RESPONSIBILITY OF THE PHARMACIST

The responsibility of providing a high standard to the public is the pharmacist's; he cannot divest himself of this. Anyone with low ideals in pharmacy is trading upon the credulity of the sick and suffering and is unworthy of his position. We may claim that, in general, a high ideal does exist, but nevertheless the pharmacist should satisfy himself that duties, which in the natural march of events have had to be abdicated, are carried out by the persons to whom such duties are entrusted with the same high standard as the pharmacist would wish for were the work done in his own pharmacy. Anyone who has had experience of manufacturing knows the instinctive pride taken in things one has made. Now that the manufacturing operations in the pharmacy have been much reduced, it is well that the high standard which manufacturing for himself produced should, under altered conditions, be in no way lessened. It may be an inconvenient question to

raise, but what happens to the inferior drugs that come on our market, for example, the wormy ergot, the damaged ipecacuanha, or the senna sweepings? Other cases of a similar nature could be suggested. The fact that these pass into consumption does point to the need of vigilance. The fact also that assay of pharmaceutical products and fixed analytical standards have been so largely adopted has had the effect of tending to create a standard minimum of quality. "It is guaranteed to pass the B.P. test" is a well-known phrase, and if taken literally and left at that, it means that a minimum of quality *plus* perhaps some clever sophistication may pass inferior goods with a spurious guarantee. Cases within this category make for illegitimate competition with the products of the manufacturer who maintains a high standard of quality. To show how the enterprise of the sophisticator marches side by side with the constructive skill and research of the genuine pharmaceutical investigator, Mr. Lescher quoted from a recent article in *THE CHEMIST AND DRUGGIST* of adulteration going on in oil of lavender (October 17, p. 551). He went on to say that the extract quoted is an example of how advancement in pharmaceutical knowledge and the setting up of standards are at times met by the prostitution of science, to the detriment of everyone in the industry, except the fake producer—and he often does not last long. The danger is that a genuine article gets let down or sophistication brings up to the standard and enables a spurious guarantee, "It answers the test of the B.P.," to be given.

PROGRESS AND ATTENDANT EVILS

One sees, therefore, how the advance in pharmaceutical knowledge which brought about standardisation in assay and tests has its attendant evils, but probably, like examinations, these are necessary until a better method of selection is devised. As examinations bring out a clever boy who may afterwards be a failure in the practical affairs of life—so standardisation and limits of impurities, if taken by themselves and other considerations ruled out, may tend to a low minimum of quality. Thus both of these modern methods of selection, the one personal the other impersonal, have their drawbacks. With his expert training and knowledge of conditions as they are, is there not a responsibility inherent on the pharmacist not to take things entirely at their face value, but to inform himself of the conditions under which manufacturing takes place, and that his interests are guarded by an adequate system of analytical control? Apart from the suggestion of a duty, does not the pride with which a pharmacist has always regarded products of his manufacture make him feel that under changed conditions he should have equal cause for pride in the handing to the public medicines bearing his name, the component parts of which are to-day purchased from the manufacturer? To regard the problem from another aspect: the last twenty years have produced a marked change in the importance to the manufacturer of the analytical department. Under modern conditions no responsible manufacturer can afford to leave much to chance. Raw materials have to be tested for purity, extractive yield, and in other directions. Many modern methods of assay and standardisation are lengthy processes which entail skill and accurate working; physiological standardisation of such drugs as ergot, squill, strophanthus, involve special organisation and highly trained operators. Biological methods of assay are required in the modern pharmaceutical laboratory, and it is a service the responsible manufacturer has to provide. As an example of the extension of biological methods of standardisation in pharmacy, the new edition of the United States Pharmacopœia provides for the assay of cod-liver oil for vitamin A potency. Further, where a wholesale druggist manufactures fine chemicals there is the analytical control required at different stages of manufacture. In any case, whether manufactured or not, the control of all chemicals issued, both for identity and purity, can only be assured by complete and rigid analytical control. Bacteriology is to-day recognised as an allied branch of pharmacy—the full range of serums and vaccines has now come under expert pharmaceutical manufacturing control.

ORGANO-THERAPEUTIC PRODUCTS

There remains the important group of organo-therapeutic substances, in which direction pharmaceutical

workers have made great headway, and in respect of which products, a manufacturer is dependent upon the careful work and vision of his chemists. The results achieved in manufacturing laboratories in connection with such substances as pituitary, red marrow, and thyroid have been the subject of extended research, but perhaps the greatest triumph of recent years has been the perfecting of the processes for the manufacture of insulin. Pharmaceutical workers in separate British concerns set themselves to overcome the very considerable practical difficulties inherent to the manufacturing of insulin on a commercial scale. British insulin was called for from all over Europe, and it was only at a much later stage that insulin of Continental make began to be produced. Further than that, owing to the large output from British works, the price was quickly brought down to a level never contemplated as possible in the earlier stages, and thus the great discovery came within the reach of sufferers among the poorer portion of the community. This is the record of pharmaceutical workers in certain British laboratories; and it is proper that it should be recorded, although perhaps it is somewhat of a digression. The analytical laboratory must not be regarded only as a place where assay and testing of finished products goes on. An essential part of the functions exercised is in research work, and no manufacturer on a large scale with progressive ideas can ignore this. Examination of raw material from new sources as to its suitability for use; problems in connection with plant; consideration of processes with a view to more economical working or better production; investigations relating to new manufactures, all afford direction for research work—a comprehensive title in its full practical sense. Examples in, perhaps, the strictest sense of the research work that goes on in the laboratories of manufacturing houses are seen in the papers published from time to time in the pharmaceutical Press, at the British Pharmaceutical Conference, at evening meetings of the Society, and on other occasions. Knowledge arising out of daily working is thus made public property, and becomes available for compilation of the Pharmacopœia and the Codex.

FINE CHEMICALS

The rapid development of the fine chemical industry, which was a matter of the greatest national importance during the war, and which has been assisted by the Safeguarding of Industries Act, has meant an added responsibility to the wholesale druggist, who has associated himself with the manufacture of fine chemicals. At different stages of these various activities, the analytical laboratory is required to function until the finished product is finally passed. All this deals with manufactures of the house; there yet remains a mass of work which comes within the scope of the analytical laboratory. Close analytical control is needed not only in the manufacture of products, but over all those products that are bought for re-sale. If the wholesale supplier is required to give his personal guarantee, in effect a legal warranty, this should mean his own analytical control; it is not sufficient for him to rely upon guarantees in turn given to him. I have referred to the custom of our trade in giving a general warranty. In case of difficulty under the Food and Drugs Acts, if the article has been sold as received, and provided the purchase has been made within the statutory period, then recourse is upon the wholesale supplier. But while the pharmacist exercises his unquestioned right in relying upon the general warranty, does that entirely exonerate him in the eyes of the public? He is the person whom the public recognises, and in case of a prosecution under the Food and Drugs Acts, his reputation must be affected. I suggest, therefore, that the chain of checks, which the analytical laboratory of the manufacturer exercises as a matter of daily routine, is not alone the sole concern of the manufacturer, but it is a matter of direct importance to the pharmacist. The extent to which a strict analytical control is exercised over all products issued, whether manufactured by the suppliers or purchased by them from a primary source, should be a matter upon which the pharmacist has an interest in keeping himself generally informed. With his responsibilities to the public, he has the right—and I should like to urge, the duty—of assuring himself of the existence of this complete control, of which the analytical laboratory is the key.

WHOLESALE AND RETAILER

With the interdependence of interests, which I have endeavoured to outline, I feel that there should be a closer understanding between the manufacturer of pharmaceutical products and the pharmacist. The interests of the manufacturing wholesale druggist and the pharmacist are identical; both have passed the same examinations and are members of the Pharmaceutical Society and local Association on equal terms, or in any case, their training is on parallel, if different, lines. It will be found that manufacturing houses are willing to co-operate in working for this closer understanding. It should be part of a student's education to pay visits to pharmaceutical laboratories, and to see how the various manufacturing operations—distillation, extraction in vacuo, percolation, etc.—are conducted on a manufacturing scale. He reads about these in his text-book, but he cannot have any proper understanding until he has seen things for himself. Pharmaceutical associations also would find such visits of interest to their members, and I would again urge the importance of the pharmacist interesting himself in the system of analytical control which he will find in force. This is the keystone of the manufacturer's operations under modern conditions, and it is of some practical moment to the pharmacist.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Saturday, October 31

Brewers' and Allied Traders' Exhibition, Royal Agricultural Hall, Islington, London, N. Daily until Friday, November 6.

Wednesday, November 4

Liverpool Chemists' Association and Liverpool Branch of the Pharmaceutical Society, Royal Institution, Colquitt Street, at 8 p.m. Special meeting to discuss the four points raised at the Delegates' Meeting at Glasgow on July 28.

Pharmaceutical Society of Great Britain (Bolton Branch), Collinson's Cafe, Knowsley Street, at 6.45 p.m. Whist drive. Tickets, 3s. 6d. (includes refreshments), from secretary or members of Committee.

Plymouth Pharmacists' Association, Duke of Cornwall Hotel, at 7 p.m. Whist drive, supper and dance.

Royal Society of Arts, John Street, Adelphi, London, W.C., at 8.30 p.m. Opening of the session. Inaugural address by Sir Thomas H. Holland, K.C.S.I., K.C.I.E., F.R.S., Chairman of the Council, the subject being "The Organisation of Scientific Research throughout the Empire."

Society of Public Analysts, Burlington House, Piccadilly, London, W., at 8 p.m. Meeting.

Thursday, November 5

The Chemical Society, Burlington House, Piccadilly, London, W.1, at 8 p.m. Paper on "Further Studies on New Chlorinating Preparation of Polychlor Derivatives of Toluene," by Mr. O. Silberrad.

National Association of Women Pharmacists, Russell Hotel, Russell Square, London, W.C., at 8 p.m. Sir William Glynn-Jones on "Current Pharmaceutical Topics."

Pharmaceutical Society of Great Britain (West London Branch), Slaters' Restaurant, 192 Oxford Street, at 8.15 p.m. Address by Mr. H. N. Linstead, Assistant Secretary of the Society, on "Possible Improvements in the Pharmacy Acts and in the Constitution of the Society." To be followed by music and light refreshments.

Sheffield Pharmaceutical and Chemical Society, Church House, St. James Street, at 8.30 p.m. Address by Mr. E. H. Simmons (member of the Pharmaceutical Council). A meeting of the Sheffield Branch of the League of ex-Service Pharmacists will follow.

West Ham Association of Pharmacists, Earlham Hall, Forest Gate. Social and dance. Tickets (3s. each) from members of the Committee, or Miss Riffin, 208 Osborne Road, Forest Gate, London, E.

MANCHESTER PHARMACEUTICAL ASSOCIATION.—The annual dinner will be held at the Midland Hotel on November 11 at 6.30 p.m. Reception at 6 to 6.30. Tickets (12s. each) from the secretaries or any member of Council.

CHEMICAL SOCIETY.—An informal lecture will be given on November 26 at Burlington House, London, W., at 6 p.m., by Professor R. Robinson, F.R.S., on "Recent Researches on the Structural Relationship of some Plant Products."

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—The first evening meeting of the session will be held in the Lecture Theatre of the Society's house on November 10, at 8 p.m., when a lecture will be given on "Some Useful Plants of India" by Lt.-Col. Sir David Prain, F.R.S., I.M.S. (formerly Director of Royal Botanic Gardens, Kew).

Modern Physico-Chemistry in its Pharmaceutical Applications

By W. A. Whatmough

XXII. The Flow of Radiant Energy—I

THE essential unity of natural phenomena which is the guiding principle of this series of articles is as old as the history of physical science. It originated 2,500 years ago with Thales of Miletus, who discovered the electrification of amber on rubbing. Modern scientists, like their Greek prototypes, still speculate upon the granularity of matter, and argue about the structure of space. The sole difference is one of degree of subdivision; for whereas Democritus (400 B.C.) discussed atoms and empty space, to-day corpuscular electricity (electrons) and ethereal radiation agitate the scientific mind. The ether of space still remains a shadowy background for a whole series of physical sciences, in which "oscillations" (or particulate electrical charges) cause "vibrations" in an ethereal continuum. "Wireless waves" have led to a widespread recognition of the existence of the ether of space. Scientific thought, however, becomes more and more enveloped in a mist of misunderstanding, for its pioneers postulate with each discovery a further finer structural discontinuity in space. The invention of the name "quantum" for a new type of indivisible unit of ethereal energy only confuses the issue; for this unit is selected since it has the happy knack of always being the right size, because absorption of radiant energy presumes its pre-existence in space ostensibly owing to it being one of the permitted radiations allowed to be emitted by another electron. Physicists must pardon chemists if the latter are apt to consider that such abstractions pertain more to metaphysics than physical chemistry, and seek an explanation more in keeping with every-day experience.

RADIATION

Article XXI indicates how matter and energy may be different modes of motion of the same universal medium. This affords an avenue of escape from the separation of space and matter, and conjoins their interaction into a single study—that of the flow of radiant energy, this being the meaning of the more usual term "radiation." In the wordy warfare concerning the discrete or continuous character of the universe, which has spread over more than two millennia, the disputants never appeared to have time to ponder whether both parties might be right or wrong according to circumstances. The blackness or whiteness of a body depends upon both illumination and the point of view. By lateral lighting it is black to one observer and white to another person on the opposite side, but both agree that the body is "white" when bathed on all sides with that radiant energy of all frequencies which constitutes the visible spectrum, and "black" when the emission of light ceases. Likewise in the triangle of space, time, and matter (the three fundamentals dealt with in Article VI), the fact that matter and space may move together and eliminate time in the absence of relative motion seems to have escaped consideration. The conception of time itself is an invention of man, due to a desire to make measurements whereby standards of comparison can be set up, the arbitrariness of which has already been stressed in Article XIV.

Now ether in rotation possesses inertia because it alters the course of streaming ether, but ever an equilibrium state or region of relative rest exists which defines the boundary between rotating matter and flowing medium. Any change in the condition of flow of either form of fluid motion disturbs this region of relative rest, and results in absorption or emission of energy with corresponding increase or diminution in mass. [On the restricted theory of relativity radiant energy (E) is converted upon its absorption into mass (m) according to the equation $m = \frac{E}{c^2}$, c being the velocity of light.]

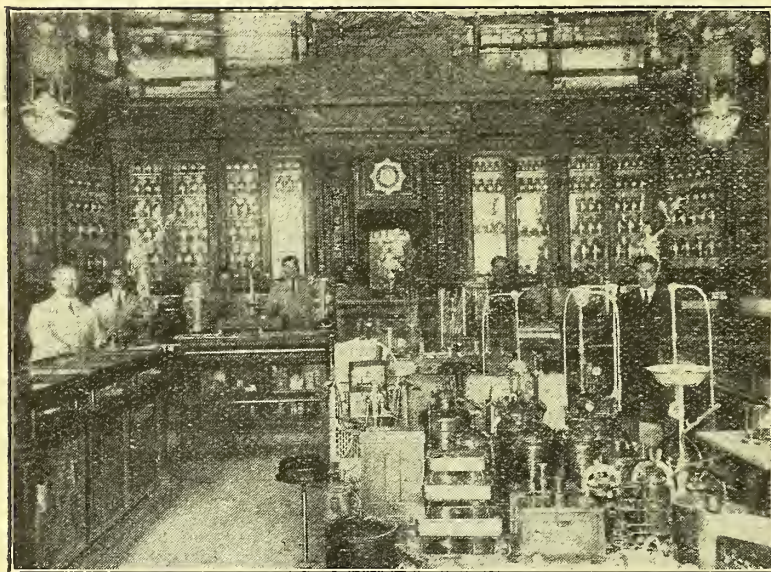
Ordinarily our experimental physical apparatus registers the average of many effects, though nowadays it is possible to see and hear the disintegration of a single atom. Increase in or stoppage of flow of energy (i.e.,

a change) is the basis of physical measurement, hence mathematical physics is concerned with accelerations and the use of differential calculus for calculating the "forces" causing the growth, maintenance, or decay of energy flows which are measured by work done. The actual measurement of fluid flow is full of complexities, and requires an understanding of the subtleties of the velocity effects recorded when a differential pressure device such as a Pitot tube registers the pressure difference between two portions of the streaming fluid. Actually it is possible to obtain endless combinations of pressure differences between nil and a negative or positive maximum, added to which the form of flow can mislead regarding interpretation of the result of experimental results. Yet there is a definiteness with which each of these innumerable velocity effects can be reproduced by competent experimenters with quantitative accuracy in the resultant flows, so that one is compelled to negative any idea of haphazard motion in the flow of fluids.

A COMPARISON

Fortunately, these complexities of relative flow of matter and medium can be greatly simplified by comparison with a river carrying logs of wood down-stream, this analogy providing us with matter distributed in a single plane moving at varying velocities. We can see for ourselves that the logs move fastest in mid-stream, and their velocity is slower and may even be nil at the banks. Any widening of the stream slows the logs, and conversely they gain speed in passing its narrower sections. Bumps and stoppages occur at bends and weirs, and so it is possible to go on and on studying the varying motion of the logs without reference to any correspondence in the flow of streaming water itself. The incongruity of this only becomes evident when the suggestion is made that the pressure and properties of the whole stream are due to floating logs. Yet such is the state of affairs in the kinetic theory of gases, which imputes all motion to the molecules and none to the surrounding ether. Such an hypothesis gives rise to a whole science of statistical probability (or laws of chance collisions) which requires assumptions of frictionless motion and perfectly elastic collisions unknown in mechanical science. How simple the explanation of molecular movement becomes by regarding matter and ether as flowing together, each affecting the relative motion of the other. Then the regularity of the laws of fluid flow (Article VII) replaces haphazard motion, and causes are evident for the conjoined varying velocities of both body and medium. Lastly, violent agitation of stream (temperature) or sudden stoppage of logs (impacts of ionisation) produce profound effects corresponding to that agitation of ether of space or atomic matter which initiates chemical activation. This analogy of logs floating in water will be used again and again in our studies of atomic and molecular motion, for it forms a convenient means of representing flow phenomena in a manner similar to diagrams on paper. Furthermore, it typifies the need of a wide outlook in investigating natural phenomena, for the flowing stream represents the supposed tendency of energy to descend to a lower level, with an inevitable degradation or running down of the energy of the whole system in motion. In reality there is an invisible portion of the streaming system of water circulation, for its continued working requires a supply of solar energy to evaporate water and cause the water-laden atmosphere to ascend and form clouds which give rise to rain. Whatever water or logs may descend the stream, work must first of all be done in raising them to their starting-point—which brings us back to our prime principles of energetics (in Article III) that work is a circulation of energy. The study of the flow of energy (designated as "heat") constitutes the science known as thermodynamics. Heat is treated as a distinct entity in thermodynamics because its flow from a body at high "temperature" to another material substance at a lower "temperature" is measurable in calories. These practical units of intensity of flow and quantity of heat are defined by arbitrary but practical considerations. It will be shown later that "temperature," "electromotive force," and "velocity effect" define measurable differences between two of the innumerable energy levels in an ethereal flux.

Some Greek Pharmacies



ATHENS.—Pharmacie G. Revelakis.



ATHENS.—Interior of the "Pharmacie Normale" A. C. Dambergis.



ATHENS.—Pharmacie P. A. Marinopoulos.



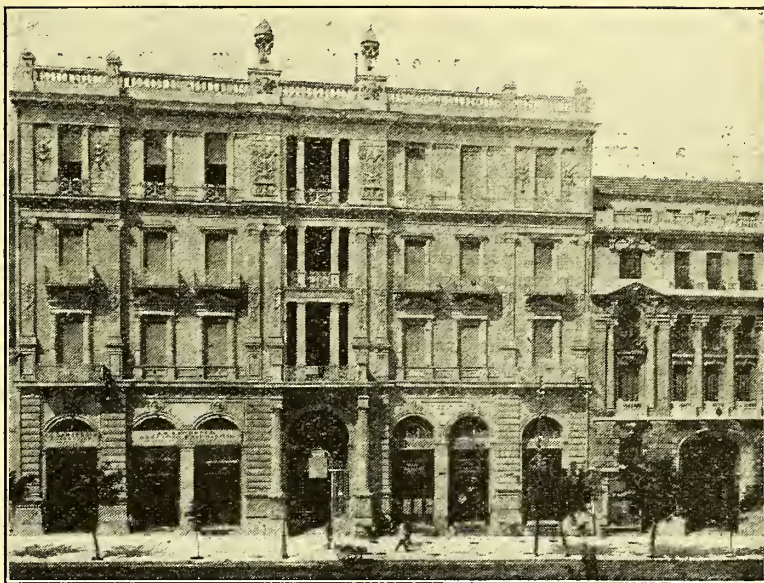
ATHENS.—"Pharmacie Centrale d'Athènes" N. Karterakis

On this and on the opposite page we reproduce a few illustrations of some notable pharmacies of the Greek capital. The name of the late Dr. A. C. Dambergis, professor of pharmaceutical chemistry in the University of Athens, the author of a large number of text-books on pharmacy and other scientific publications, as well as of the *Pharmacopœias* which were officially in use between 1899 and 1924 (*C. & D.*, June 27, p. 985), is perpetuated in the "Pharmacie Normale," opened by him in 1906. Situated at 51 Boulevard de l'Université, opposite the University and the National Library, this business is a fitting monument to the memory of one who, during his lifetime, contributed so much to the advancement of pharmacy in Greece. In the photograph of the interior of the pharmacy, in the background, will be seen a painting by Dr. Hellmann of "Christ as Pharmacist." The medicines are arranged in three distinct and separate groups:—(1) Drugs; (2) in-

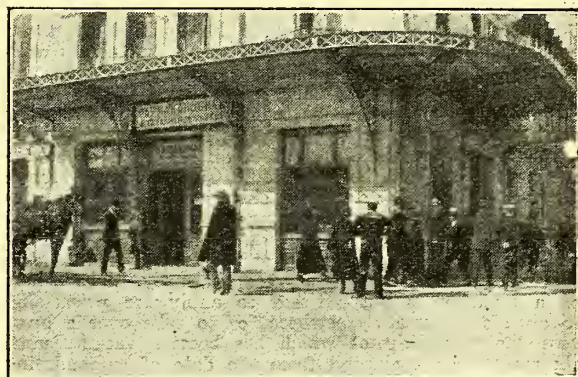
organic; and (3) organic compounds, in shop rounds of Bohemian glass, with the titles in blue letters on a white ground. All poisons are kept in special cupboards, the colour of the label serving as an indication of their toxicity, i.e., red letters on a white ground for the less dangerous, and white letters on a black ground for the most potent poisons. As an additional safeguard for the dispenser, the maximum single and daily dose is stated on each label. Attached to the pharmacy are several laboratories, fully equipped with modern plant and scientific apparatus, for the manufacture of galenicals, etc., and for analytical work of all descriptions, including the examination of urine, blood, sputum, gastric contents, foods, and x-ray work. On the death of Professor Dambergis, his son, M. C. A. Dambergis, assumed the

ownership of the business, while the scientific work is now being carried on by his son-in-law, Professor E. Emmanuel. The "Pharmacie G. Revelakis," founded nearly fifty years ago, specialises in the supply to the army, surgeons, and clinics of surgical and orthopaedic instruments, a collection of which figures prominently in the foreground of the pharmacy, as will be seen from the accompanying illustration. The pharmacy of M. P. A. Marinopoulos, Boulevard de l'Université et Patissia, at the Place de la Concorde, was founded in 1893, and is considered to be one of the most up-to-date businesses in Greece. In its laboratory a wide range of specialities is manufactured, including dentifrices, beauty creams, and a proprietary tonic lotion for the hair. The pharmacy opened in 1880 by M. N. Karterakis is now known as the "Pharmacie Centrale d'Athènes"; its window display, as will be seen from the photograph, is not unlike that of many an English chemist's shop. In 1916 MM. A. Sakalis and P. Bakakos opened a pharmacy in the Square Omonia, since acquired by the Chemical and Pharmaceutical Products Co., Ltd., which has a capital of 2,000,000 gold drachmæ. The business is now under the management of one of the founders, M. P. Bakakos, who is also the technical manager of the company, and general secretary of the Panhellenic Pharmaceutical Society.

We are indebted for most of the accompanying photographs to the courtesy of Dr. Em. J. Emmanuel, Professor of pharmaceutical chemistry in the University of Athens, whose name is well known to readers of THE CHEMIST AND DRUGGIST.



ATHENS.—"Pharmacie Normale" A. C. Dambergis.



ATHENS.—Pharmacie Sakalis-Bakakos.



ATHENS.—Interior of the Pharmacie P. A. Marinopoulos.

Greek Pharmacy System

A NUMBER of interesting features are embodied in a Bill drafted by the Greek Minister of Health to regulate the conditions under which new pharmacies may be opened and vacancies filled. Subject to the approval of the Minister, a pharmacy may be opened in a place possessing at least 500 inhabitants, one additional pharmacy being permitted for every 2,000 souls up to 20,000 and for every 2,500 in towns counting more than 20,000 inhabitants within a radius of five kilometres. Other considerations being equal, preference is given to a native of the place where the business is to be opened. However, the Minister may grant permission to open a business in excess of this ratio if the applicant is a specially distinguished pharmacist, or if he has been in the Government service. A special concession is envisaged to the railway companies, which are to be permitted to work their own pharmacies, for the service of the staff only, in which case this railway pharmacy must be situated in the station itself, under the management of a qualified pharmacist, who is not permitted to own or be connected in any way with another business. Particularly interesting is the preferential treatment accorded to retired army pharmacists, who may receive permission, if under the age of 55, and provided they have not previously owned a business, to open a new pharmacy outside the fixed quota, in the larger towns in the ratio of one for every 100,000 inhabitants. In addition, retired as well as pensioned army pharmacists also receive a certain measure of preference when applications for opening new businesses are under consideration by the Minister. The right to open pharmacies in excess of the stipulated number may also be claimed by those pharmacists of Eastern Macedonia whose businesses were destroyed during the Germano-Bulgarian invasions of 1916 and 1917, provided they have served in the Army Reserve. On the permission being granted, the pharmacy must be fitted up, in accordance with the existing legal requirements, within a period of six months, otherwise the permission will be cancelled. Company and branch pharmacies are not permitted, since a pharmacist is prohibited from owning or managing more than one business. Doctors are allowed to dispense medicines to their patients only if they reside at a distance of at least four kilometres from the nearest pharmacy. The owner of a business is not entitled to apply for permission to open a pharmacy elsewhere, or to take over a business the ownership of which has become vacant, until six months have elapsed from the date of surrendering the business actually held by him. On the other hand, after being in possession for at least two years, the owner may transfer the business to another pharmacist, in which case, however, he is debarred from submitting an application to open a new pharmacy, as well as from competing for a vacancy, until five years have elapsed from the date of the transfer. An exchange of businesses between pharmacists is allowed, provided that both have been established for at least three years. On the decease of the owner of a pharmacy, the widow, or children, may sell the pharmacy within six months, otherwise it may be managed on behalf of the heirs for a period of ten years, whereupon it is to be compulsorily closed. Laboratories in which pharmaceutical preparations are manufactured must have a manager approved by the Superior Council of Health. Manufacturers are permitted to sell wholesale only their own products, and agents only the products of those firms which they actually represent as certified by the local chamber of commerce. If the owner of a pharmacy engages in the wholesale drug trade, this branch of his business must be carried on in separate premises; his partners, if any, must have had a scientific training. Pharmacists with a wholesale business, agents, and manufacturers of pharmaceutical preparations may not hold a government, municipal or other public office. It is interesting to note that existing pharmacies are not affected by the proposed regulations, which further contain a provision to the effect that, in future, when the ownership of a business falls vacant, refugees and retired army pharmacists are to be given the preference among the competitors for the purchase of the business.

Business Changes

DEBACQ & HARROP, manufacturers' agents, 7 Little Goudge Street, London, W.1, have moved to 68 Newman Street, W.1.

MR. R. DE C. MCFALL, chemist and druggist, has taken over the business of Butler's Botanic Pharmacy, Ltd., 199 Parrock Street, Gravesend.

MR. A. H. CLARK, chemist and druggist, is taking over the business of Mr. J. S. Norrie, chemist and druggist, 58-60 Tonbridge Road, Maidstone.

STEWART & FIELD have opened a pharmacy at 140 Eastern Esplanade, Thorpe Bay. The principals are Messrs. A. Stewart and S. Field, dispensing chemists.

MR. A. J. FRANKLIN, chemist and druggist, 86 King's Road, Brighton, has acquired the business recently carried on by Mr. A. Cooper, chemist and druggist, 37 Station Road, Portslade.

MR. F. D. FINN, chemist and druggist, 193 Battersea Park Road, London, S.W.11, has taken over from Mr. O. F. Moss the business carried on at 91 High Street, Wandsworth, S.W.18, as from October 13.

MR. J. S. NORRIE, chemist and druggist, 58-60 Tonbridge Road, Maidstone, is taking over, on November 1, the business of Mr. F. W. Whiteley, chemist and druggist, 92 London Road, Southborough, Tunbridge Wells.

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of any British patent can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Sodium Pentaborate.—Boron ore is subjected to the action of sulphur dioxide, the gassed ore is heated in water, with or without the addition of sodium sulphate. The sodium pentaborate is then crystallised from the filtrate. (Borax Consolidated, Ltd., and A. A. Kelly. 239,758.)

Antitoxic Medicament.—The liquid expressed from cancer or other tumours is sterilised and mixed with malt, whereupon a fresh culture of yeast is added. After one week the material is dried and formed into pills or tablets; or the sterilised, filtered liquid from a bacterial culture is mixed with malt beer, or 5 per cent. solution of sugar, and 5 per cent. yeast cells. (R. H. Deutschmann. 239,302.)

Acyalted Diamines.—The manufacture of mono- or unsymmetrical di-acylated diamines by (1) causing an unsymmetrical di-substituted alkylendiamine to react with an acid halide, if necessary, in the presence of an agent that binds the acid, so as to produce a mono- or unsymmetrical di-acylated diamine, or (2) heating an alkylene diamine with an acid or acid ester so as to obtain a mono-acylated diamine, more than one molecular proportion of amine to one molecular proportion of acid or ester being preferably used. (Society of Chemical Industry in Basle. 219,304.)

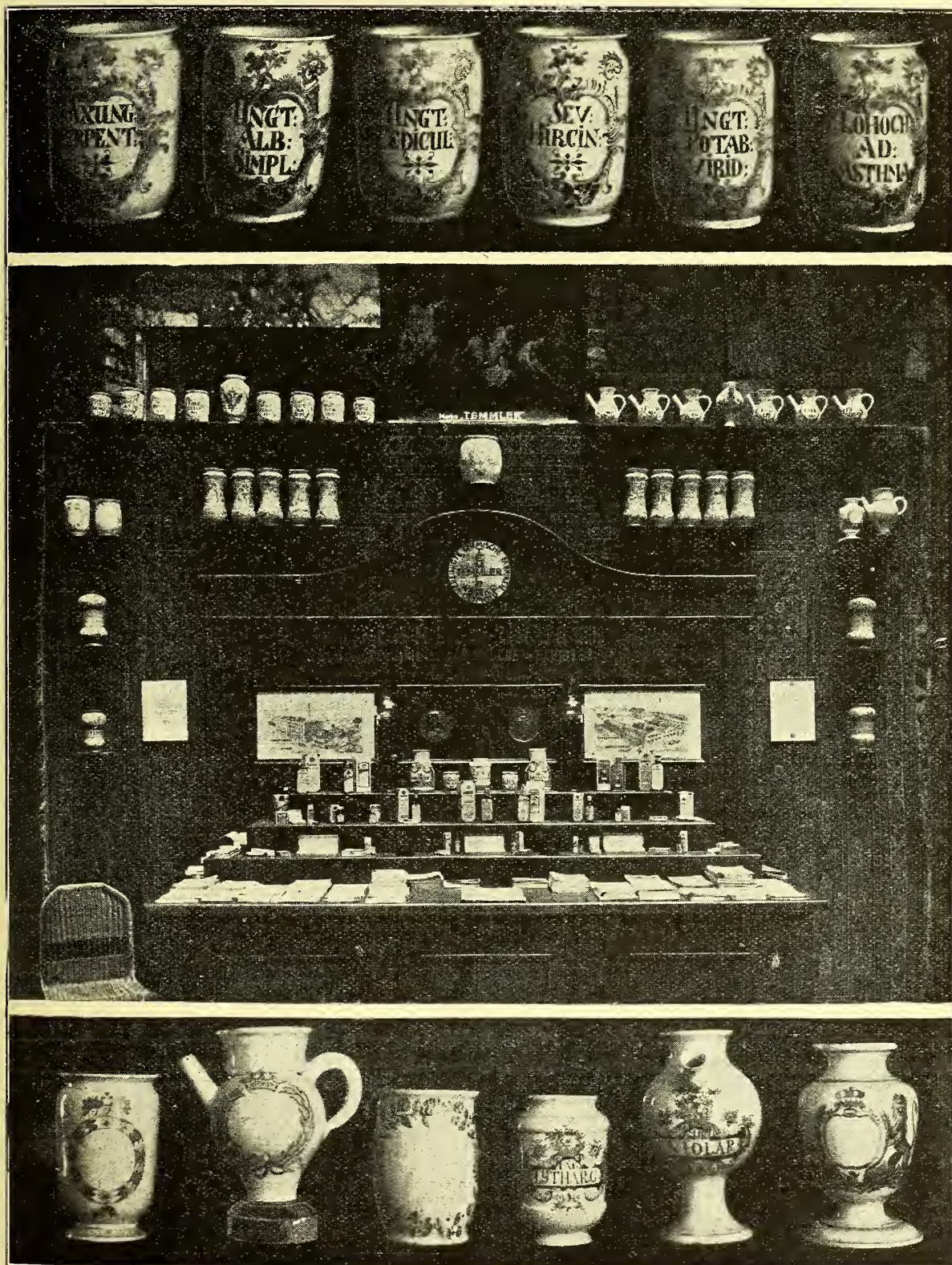
THE LATE PROFESSOR LEFROY.—A scheme is being prepared for the institution of a memorial to the late Professor Lefroy, who lost his life while experimenting with a poisonous gas (*C. & D.*, October 17, p. 545). The proposal is that the memorial should consist of a Lefroy Laboratory of Applied Biology. Colonel Nathan Raw, M.D., is chairman of the committee which will appeal for funds.

AN OLD BUSINESS.—An account is given, in "The Yorkshire Evening News" of October 20, of the business known as Reinhardt & Sons, Ltd., chemists, Leeds, which, it appears, was founded in 1774 by Johann Christian Reinhardt. The founder died in 1787, and the business was continued by his widow till 1799. One of their descendants carried on a chemist's shop at Wakefield.

Temmler Collection of Pharmacy Pots

WE are able to reproduce a first selection of pharmacy pots from the magnificent collection of Commercial Councillor H. Temmler. The top row consists of Fulda

fayence, while Hanau, Fürstenberg and Nymphenburg ware figure in the lower one. The centre shows an exhibit of the Temmler Works, Detmold.



Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts.

ENGLAND AND WALES

Local Reports

Denbighshire.—At the quarterly meeting of the Insurance Committee, held at Wrexham on October 15, it was reported that the number of insured persons on April 1, 1925, was 56,387. There were 51 panel chemists. The Committee's scheme for the testing of drugs and appliances has become operative.

London.—At a meeting of the Insurance Committee, held on October 22, the Finance Subcommittee recommended the payment of accounts amounting to £202,601 11s. 2d. Amongst these was the sum of £16,954 11s. 7d. to chemists for the medical year 1925. The accounts were passed. The Subcommittee further reported that they had consented to £600 and £800 being advanced to the Panel Committee and the Pharmaceutical Committee, respectively, on account of the administrative expenses for the current year. The Ministry of Health had credited the drug fund with an additional sum of £45,322 8s. 10d. The amount previously credited was £192,000, and the additional credit makes a total of £237,322 8s. 10d., which represents the amount paid for drugs and appliances supplied to insured persons during the year ended December 31. The Medical Benefit Subcommittee reported that there were 847 chemists on the panel on September 30. Of these, 791 were in general business, forty-four in institutions, and twelve other persons.

Middlesex.—In sending to panel chemists an intimation that additional appliances had been added to the Drug Tariff as from October 1, Mr. Hugo Wolff, secretary to the Pharmaceutical Committee, sent a reminder regarding the position of "dangerous" drugs as follows:

I am instructed by my Committee to remind you that it is necessary in all cases to record the dispensing of drugs covered by the terms of the Dangerous Drugs Acts and Regulations.

Though Section 4 of the Dangerous Drugs and Poisons (Amendment) Act, 1923, exempts chemists from copying into the prescription book N.H.I. prescriptions ordering poisons, this does not relieve them from the necessity of making an entry in the appropriate D.D.A. Register when any dangerous drug is ordered for an insured person.

Since all prescriptions ordering dangerous drugs must be entered in full (i.e., copied) in some book, you may decide to copy those for insured persons in the prescription book and to make appropriate reference to the prescriptions in the D.D.A. register, just as you do in the case of private prescriptions. Otherwise you must enter the N.H.I. prescriptions in full in the appropriate D.D.A. register.

A further point to which I beg to direct your attention is the desirability of giving the Pricing Office all information required for the pricing of N.H.I. prescriptions. It is useless to intimate that special expenses have been incurred in procuring what was ordered, without specifying what those expenses amount to. When plasters are supplied, their length and breadth should always be indicated. Inquiries from the Pricing Office should receive definite and courteous replies, because it is only on the basis of the fullest possible information supplied by the chemists who dispense the prescriptions that the latter can be properly priced.

To prevent misunderstanding, it may be added that the expression "dangerous drugs" is used in the technical sense as including the drugs mentioned in Dangerous Drugs Acts, but not those below the limits laid down in the Acts.

Surrey.—At a meeting of the Insurance Committee, held on October 23, it was reported that Messrs. E. T. Neathercoat, J. Noble and W. H. Fowler had been appointed as members of the County Pharmaceutical Committee. Eleven additions have been made to the Panel List and there were seven withdrawals. The following additions have been made to the list of prescribed appliances:—Ring pessaries, eye droppers, eye baths, hypodermic syringes and needles (for self administration of insulin). The Medical Benefit Subcommittee has consented to two doctors giving up dispensing for their patients. The Pharmaceutical Society informed the Subcommittee that a certain person trading in the name

of a firm, which name appears upon the panel list, was not entitled to conduct the business, not being qualified under the Pharmacy Acts.

Associations' Winter Session

Brighton.—The Brighton and Hove Association of Pharmacy and branch of the Retail Pharmacists' Union held the annual meeting on October 22, the President (Mr. J. Plowright) in the chair. The following officers were elected:—*President*: Mr. J. Plowright; *Vice-Presidents*: Messrs. Burgess, Flatman, Franklin, Jones, Savage, and Yates; *Treasurer*: Mr. H. R. Gwatkin; *Secretary*: Mr. J. A. Dyson; *Assistant Secretary*: Mr. K. J. Padwick; *Librarian*: Mr. C. S. Ashton; *Assistant Librarian*: Mr. H. B. Mackie; *Committee*: Messrs. Balchin, Chatfield, Cupit, Fowles, Hall, Mackie, and Vickers.

Ealing.—A combined meeting of the Ealing Pharmacists' Association and the Ealing Branch of the Pharmaceutical Society was held on October 20. The President (Mr. R. F. Edkins) was in the chair, and Mr. Frank Brown, F.I.C., F.C.S., gave an interesting lecture on *Radium*, with an exhibition of valuable specimens. The President at the outset welcomed several members of the Ealing Scientific and Microscopical Society, who were present on the invitation of the Association. The Branch Committee for the ensuing year was elected as follows:—Messrs. T. Marns, F. Browne, R. J. Morton-Sennitt, J. E. Alcock, W. J. Blair, A. C. Roskrow, W. T. Robinson, H. R. Storm, W. Cox, A. R. Hewish, H. L. Ironmonger, C. W. A. Thompson, H. A. Irwin, T. S. Allen, and Miss Hoare.

Edinburgh.—A meeting of ex-Service pharmacists in the Edinburgh area was held on October 22, Mr. J. Rutherford Hill, Ph.C., in the chair. Mr. Leo Apedaile read a letter from Captain Harold A. Hill, and the chairman explained the origin and purpose of the League. Mr. W. G. McNab, chairman of the Executive of the North British Branch and of the Edinburgh and South-Eastern Scottish Branch of the Society, promised all possible assistance on the part of the Society's local branch. Office-bearers for the Edinburgh Branch were elected as follows: *President*, Mr. J. R. Sutherland; *Secretary*, Mr. Leo Apedaile; *Treasurer*, Mr. T. C. Nelson. *Committee*: Messrs. W. H. Beattie, J. J. Blackie, A. M. Boyne, M. Macpherson and T. Mason. It was agreed to communicate at once with all members of Parliament for Edinburgh City and Midlothian County in co-operation with the Society's Branch.

Pontypridd.—A meeting of the Ex-Service Pharmacists' League—Merthyr, Aberdare, Pontypridd and Rhondda Branches—was held recently at Pontypridd, Mr. Ivor Richards presiding. The following resolutions were passed as recommendations to the War Office:—(1) That a pharmacist officer with the rank of captain be on the staff of the War Office in the Army Medical Department; (2) A pharmacist officer—a highly-qualified teacher recognised by the Pharmaceutical Society—to be in charge of the Army School of Pharmacy; (3) The formation of a reserve of pharmacists to supplement the Regular Army in times of war." It was reported that a large number of replies had been received from Welsh members of Parliament pledging themselves to support the objects of the League. The officers appointed for the ensuing year were as follows:—*Chairman*, Mr. Ivor Richards; *Treasurer*, Mr. R. Lloyd Griffiths, Pontypridd; *Secretary*, Mr. Gwynne Jones, Penygraig.

CYPRUS SPONGE FISHING INDUSTRY.—The sponge fisheries of Cyprus are supervised by the Chief Collector of Customs, and the sponges obtained are of good quality. The Cypriot, however, does not take kindly to the industry, and the fishing is mostly done by fishers from the Greek islands, more particularly Symi and Calymnos. Thirteen machine boats from the Greek islands and two local boats operating with harpoons fished from July to September 1924, as compared with a total of eighteen boats in the previous year. The results were very good, and approximately 600,000 sponges were obtained.

Proprietary Medicine Legislation in Austria

A NEW order regulating the manufacture, sale and importation of pharmaceutical specialties, in substitution of former enactments (*C. d. D.*, I, 1921, index folio 426), has been issued by the Austrian Federal Ministry for Social Administration. Article 1 defines a pharmaceutical speciality as "a medicinal preparation put up in a distinctive package to be delivered as such directly to the public." It must represent either an effective combination of remedial agents, or must constitute a new form of administration by reason of the method of preparation or presentation. Organo-therapeutic products in the form of solutions, tablets, pills, etc., are included in this description, with the exception of simple organo-therapeutic extracts. Pharmaceutical specialties may be placed on the Austrian market only if licensed by the Federal Ministry for Social Administration and after registration. Dietetic and cosmetic articles, for which no medical claims are made, are exempted from registration, as well as bulk packages of chemical compounds of definite constitution not intended to be sold as such to the public. The application for registration must be made by the proprietor of a pharmacy, or by a person authorised to manufacture and sell medicinal preparations, established in Austria. In the case of foreign specialties which are not manufactured in Austria, the application must be submitted by an Austrian pharmacist, or by a duly authorised firm inscribed on the Austrian commercial register. Owners of retail drug stores in which drugs or chemicals are sold directly to the public are not permitted to apply for the registration of a pharmaceutical speciality.

REGISTRATION

The application for registration must contain the following particulars:—(1) Complete disclosure of the composition: data regarding manufacturing processes should be added, if this information is likely to assist in the examination of the preparation; this information will be treated as an official secret. (2) An original specimen or a draft of the German text of the labels for use in Austria. (3) Four copies of all printed matter, in German, intended to be enclosed with the preparation, as well as the text of the advertisements it is proposed to insert in non-medical and non-pharmaceutical publications. (4) A statement of the wholesale price ex factory or depot. (5) Samples of the single ingredients. The application must be accompanied by two original packages of the preparation; preparations bearing the same name and containing the same ingredients issued in packages containing different amounts of the latter may be registered as one article under a single registration number. Simple mixtures or solutions may only be registered as pharmaceutical specialties if special claims are made regarding their therapeutic properties. In the case of organo-therapeutic preparations, in addition to disclosing the composition, the applicant must also state the method of assay adopted for the control of the product. The results of clinical or scientific investigations must be submitted to substantiate a claim for the registration of a pharmaceutical speciality containing substances the therapeutic activity of which is as yet not definitely established. Registration will not be granted in the following cases:—(a) If the article is an imitation of any preparation contained in the present or any former edition of the Austrian Pharmacopœia; (b) if the composition does not agree with the statements made in the application; (c) if the ingredients are incompatible from a physical, chemical or pharmacodynamic point of view; (d) if the statements regarding the composition are so inaccurate that the preparation of a sample, in accordance with the declaration given in the application, for the purpose of comparison, yields a totally dissimilar product; (e) if the amounts of the single ingredients differ from the customary normal doses without any scientific justification; (f) if the price is obviously excessive.

Article 5 requires that the label shall contain the following particulars:—(a) Name of the preparation; (b)

name of the manufacturer; in the case of foreign preparations, also that of the Austrian representative; (c) enumeration of the active ingredients, and if heroic substances are present, the amounts of the latter; (d) simple directions for use, in German; (e) registration number, in the following form, "Sp. R. Nr....," which must be printed as an integral part of the text; (f) if applicable, an indication to the effect that the preparation may be sold only on a medical practitioner's or veterinary surgeon's prescription; (g) retail price in Austrian currency; however, for the present the Ministry is empowered not to insist upon this requirement. The fee for the examination of a pharmaceutical speciality amounts to twelve times the wholesale price of the package; with a minimum fee of ten Austrian shillings. If a biological or other assay is necessary an additional charge will be made. Pharmaceutical specialties may be placed on the market only in those packages actually specified in the application for registration. Any alteration in the wholesale price has to be immediately reported to the Federal Ministry for Social Administration, and if the new price is obviously excessive, the Ministry may insist upon a reduction. If the Ministry refuses to register a preparation the applicant is entitled to lodge an appeal within a period of thirty days. Should the Ministry, after an examination of the arguments advanced by the applicant, still refuse to register the preparation, the matter is referred to a special permanent commission, consisting of a medical officer of the Ministry, as chairman, a medical and a law officer of the same Ministry, an expert on pharmacodynamics and another on pharmacognosy, representatives of the sick clubs, the pharmaceutical organisations, the Council of the Austrian Medical Chambers, of the pharmaceutical industry, and also of the Ministry for Commerce and Transport. If a speciality for veterinary use is under discussion a representative of the Federal Ministry for Agriculture and Forestry will attend. Members of this commission are bound to secrecy. After registration two packages of the preparation must be deposited with the Chemico-Pharmaceutical Analytical Institute in Vienna. A list of all registered preparations must be kept in each pharmacy. The applicant for registration is held responsible for the composition and quality of the registered product, which will be submitted annually to a control analysis. This control will be carried out by the Chemico-Pharmaceutical Analytical Institute, which is empowered to demand the delivery of the necessary packages from any pharmacy or wholesale depot, the manufacturer or his agent being required to replace the packages thus supplied. The fee for this annual examination amounts to six times the wholesale price, with a minimum of five Austrian shillings. Pharmaceutical specialties which may be delivered only on a medical practitioner's, or veterinary surgeon's, prescription may be advertised solely in medical or in pharmaceutical journals. Other preparations may be advertised in the lay press, provided no unfounded or misleading claims regarding their therapeutic properties are advanced. Any alteration in the composition of a registered speciality necessitates a new application. The registration may be cancelled if the preparation is found not to correspond with the declared composition, or if it is advertised in an unseemly manner, or if other weighty objections can be adduced against its further sale, for instance, if it is liable to alteration on keeping. So-called "house specialties," that is to say, preparations sold by a pharmacist exclusively in his own business, are exempted from registration; however, these house specialties may not be advertised. On the advice of the permanent commission, to which reference was made above, a substance of definite chemical composition put up in a pharmaceutical form in a package for sale to the public, and containing not more than one active ingredient, may be exempted from registration, in which case the letters V.R.B. (Von Registrierung befreit = exempted from registration) must appear on the label.

BRITISH SUGAR.—According to reliable information, it is expected that nearly 70,000 tons of sugar will be manufactured in Great Britain this year, compared with 26,000 last year. The world's production in 1924 was about 23 million tons, and Great Britain's annual consumption is about 1½ million tons.

Personalities

MR. W. DEACON, chemist and druggist, Bridgwater, is Mayor-elect of the borough.

MR. CHARLES HARDY, chemist and druggist, High Street, Leiston, has been appointed a magistrate for the county of Suffolk.

MR. E. QUANT, F.C.S., chemist and druggist, Torquay, has resigned the position of honorary bacteriologist to the Torbay Hospital.

MR. W. MASKEW, Ph.C., The Stone House, Hertford, has been returned unopposed as a representative of All Saints ward on the Town Council.

MR. D. R. ROWLANDS, chemist and druggist, Birkenhead, has been appointed to act on the judicial authority for the borough under the Lunacy and Mental Deficiency Acts.

MR. J. S. SNELL, chemist and druggist, Accrington, who has completed six years' service on the Town Council, has been returned unopposed for the Peel Park ward.

LIEUTENANT-COLONEL HUGH LLOYD HOWARD, M.C., a director of Howards & Sons, Ltd., Ilford, has left England for a business tour of the world, and to make



Left to right: Mr. Geoffrey E. Howard, Lt.-Col. H. Lloyd Howard, M.C., Mr. Alfred G. Howard (chairman), Mr. D. Lloyd Howard, Mr. Claude F. Howard, Mr. Bernard F. Howard.

the personal acquaintance of a large number of Messrs. Howards' clients. The day before his departure the snapshot reproduced here was taken, showing the board of directors.

MR. W. F. YOUNG, chemist and druggist, who has been Mayor of Liskeard for the past two years, has accepted the unanimous invitation of the Town Council to serve again.

At a recent meeting of the "Ennerdale" Lodge of Freemasons, held at Cleator Moor, Bro. Peter McCulloch Eden, chemist and druggist, was installed Worshipful Master.

The date of the sailing for America of Mr. Edward J. Shortt, of the Old Strand Chemical and Trading Co., Ltd. (C. & D., October 24, p. 580), should have been given as October 24.

MR. G. W. CRAWFORD, chemist and druggist (the Medical Hall, Ltd., Singapore), is returning per s.s. "Macedonia," on November 6, after a stay of several months in Scotland.

At the opening meeting of the Whitley Bay Camera Club, Mr. Stillman (Brady & Martin, chemists, Newcastle-on-Tyne), described and demonstrated the Pathé Baby Ciné camera and projector.

AMONG the presents received by Mr. L. Rowland, chemist and druggist, Wrexham, on the occasion of his marriage (p. 619) was a silver tea-and-coffee set from the staffs of L. Rowland & Co., chemists.

MR. H. W. GREGORY, chemist and druggist (F. M. Rimmington & Son, Ltd., chemists), Bradford, who has been suffering from a serious illness, is much improved in health and hopes to resume his normal activities shortly.

At the bicentenary meeting of Provincial Grand Lodge of Cheshire, held on October 23, at Chester, Mr. Arthur Crossley, chemist and druggist, Shaw Heath, Stockport, was invested by the Provincial Grand Master as Provincial Senior Grand Deacon.

MR. C. J. RYE, formerly South African representative of Evans Sons Lescher & Webb, Ltd., manufacturing chemists, has taken over the company's interests in the Mediterranean, and may be addressed c/o Atkinson & Watkins, P.O. Box 854, Cairo, Egypt.

MR. JOHN WELSH, M.R.C.S., L.R.C.P., the Mayor-elect of Chester, commenced his business life with Mr. W. Hodges, Ph.C., Eastgate Row, and qualified as a chemist and druggist in 1893. Dr. Hodges was placed on the Medical Register in 1901.

At a recent meeting of the Jersey Rotary Club Mr. T. W. Attenborough, Ph.C., Conway Street, St. Helier, described the recent discoveries at Prince's Tower. During his holiday in Italy Mr. Attenborough has been received in audience by His Holiness the Pope.

THE coming-of-age of Mr. Eric Gwynne-Evans, son of Mr. G. W. Evans, chemist and druggist, Hammersmith Road, London, W.6, was celebrated on October 14 by a dance in the council chamber of Hammersmith Town Hall. Among those present were the Mayor and Mayoress of Hammersmith, Sir William Bull, M.P., Lady Bull, and Lady Foreman.

Marriages

BRICE-ROBINSON.—At St. John's Church, Felixstowe, on October 20, Stanley F. Brice, B.Sc., F.C.S., M.P.S., F.S.M.C., only son of Mr. F. G. Brice (Brice & Son, chemists, Uxbridge), to Gladys (Betty), only daughter of Mr. Robinson, Gun House, Felixstowe.

JONES-JONES.—At Wrexham, recently, O. J. Jones, Cwmavon, to Annie Margaret Jones, chemist and druggist, daughter of Mr. David Jones, chemist and druggist, Towyn.

PRATT-ARTER.—At St. James's Church, Forest Gate, London, E.7, on October 22, by the Rev. G. Handford, Charles Bignell Pratt, M.P.S., F.S.M.C., only son of Mr. C. Andrews Pratt, M.P.S., Stratford, E., to Emily Constance, only daughter of Mrs. E. Arter, Forest Gate.

ROWLAND-CARDEN.—At Llanrhos Church, on October 17, Langshaw Rowland, chemist and druggist, eldest son of Sir Leonard Rowland, "The White House," Bersham, to Hazel, third daughter of Lieutenant-Colonel Carden, "Templemore," Deganwy.

STURTON-BROOKS.—At Clapton Hall Meeting House, on October 17, Clement Sturton, F.R.C.S., youngest son of the late Mr. Richard Sturton, chemist and druggist, Cambridge, to Mary Ellen, younger daughter of Dr. Pratt Brooks.

WILSON-WRIGHT.—At the Marlborough House, Glasgow, on October 20, James Alexander Wilson, chemist and druggist, Rothesay, to Florence Wright.

Births

Notices for insertion in this column must be properly authenticated.

SUMNER.—At Station Road West, Oxted, on October 24, the wife of James S. Sumner, M.P.S., of a son.

Deaths

BARRON.—At Bridge, Canterbury, on October 16, Mr. James Barron, chemist and druggist. (See p. 605.)

BRAND.—At 28 Esk Terrace, Whitby, on October 26, Arthur John, son of Mr. Thos. H. Brand, M.P.S., aged two.

ELLIOTT.—At 61 Oak Street, Southport, on October 21, after a brief illness, Mr. Stephen James Elliott, chemist and druggist, pharmacist to the Southport Infirmary, aged sixty-one. Mr. Elliott served his apprenticeship to Mr. William Willan, chemist, Preston, and had experience as an assistant with him and with Mr. James Righton, chemist and druggist, Lord Street, Southport. He qualified in 1883, and was in business on his own account at 32 and 34 Ashley Road, Southport, for twenty-four years. In 1918 he was appointed pharmacist to the Southport Infirmary, and held the post to the end. Mr. Elliott was a Fellow of the Royal Horticultural Society, a certificate and medallion holder of the St. John Ambulance Association, and had held official position in the Southport Photography Society. He leaves two sons, one of whom is a chemist in Tasmania. At the funeral, which took place at Southport Cemetery, on October 26, the Southport Pharmacists' Association was represented by Messrs. W. H. Kendrew (President), W. H. Smith, J. W. Gee, R. H. Wilson, G. Rushton, A. H. Messenger, and H. Orr (secretary).

KING.—At 50 Long Street, Wigston, Leicester, on October 9, suddenly, Lilla Eleanor, the beloved wife of Mr. Alfred King, chemist and druggist.

MACKAY.—At Embsay, on October 21, Mr. Edward Mackay, chemist and druggist (Mackay & Sons, chemists, Forster Square, Bradford), aged seventy-eight. The business of which Mr. Mackay became the proprietor in 1878 was founded in 1842 by the late Mr. Joseph Hick. Mr. Mackay, who was a native of Greenock, was apprenticed to his uncle, the late Mr. George Kendal, Masham, and gained further experience as assistant with Harrison, Parkinson & Co., chemists, Bradford, qualifying in 1875. He was joined in partnership by his son, Mr. Charles Mackay, chemist and druggist, in 1905; and since 1918, when he had an illness, he had not taken an active part in the business. Mr. Mackay was one of the original members of the Bradford Chemists' Association, and served as President during the first two years of its existence. His portrait appeared in THE CHEMIST AND DRUGGIST, I, 1897, p. 158. For forty years he was closely connected with the Harmony Lodge of Freemasonry, of which he had been Worshipful Master, and he was at one time President of the Order of Light. The funeral took place on October 24 at Nab Wood Cemetery. The Bradford Branch of the Pharmaceutical Society was represented by Mr. Marmaduke Firth, Mr. George Broadbent (both of whom were Mr. Mackay's apprentices), and Mr. W. E. Metcalfe, Ph.C. The staff of Messrs. Mackay was represented by Mr. J. Edmondson, Mr. A. E. Deacon, and Miss Snowden.

DISINFECTANTS AND INSECTICIDES FOR EAST AFRICA.—A marked increase in the imports of disinfectants and insecticides into Kenya Colony and the Uganda Protectorate took place in 1924, in which by far the biggest share was secured by British exporters. During last year receipts from the United Kingdom totalled 3,707 cwt. (£8,793), which was almost double the quantity received in 1923. Total imports of disinfectants and insecticides into East Africa in 1924 amounted to 5,433 cwt. (£10,937), compared with 3,611 cwt. (£7,510) in 1923. Germany is the only competing country of real importance. German imports increased by nearly 250 cwt., to 1,719 cwt., the value amounting to £2,109.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1925, p. 289.

(From "The Trade-marks Journal," October 14, 1925.)

- "MALTINE"; for malt foods (42). By The Maltine Manufacturing Co., Ltd., 9 Holborn Viaduct, London, E.C.1. 456,193. (Associated.)
- "MALTO NEAVE" ("Malto" disclaimed); for a food (42). By Neaves' Food, Ltd., Fordingbridge, Hampshire. 457,301. (Associated.)
- "SAVAV"; for food preservatives (42). By F. H. Lockyer Supply Co., Ltd., 56 Arley Street, Liverpool. 459,962.
- "RUSKOMA"; for all goods (42). By Stamina Foods Co., Ltd., 2 Princess Street, Bootle, Liverpool. 461,518.
- "VALVONA"; for all goods (43). By J. E. Toogood, 51 North Street, Exeter. 457,456.
- "AZNA"; for perfumery, etc. (43). By E. S. Wilson, 24 Hop Exchange, London Bridge, S.E.1. 461,421.

(From "The Trade-marks Journal," October 21, 1925.)

- "ARDCO"; for disinfectant chemicals (2). By The Midland Coal Products, Ltd., Colwick Estates, Chaworth Road, Netherfield, near Nottingham. 451,658. (Associated.)
- Circular device of man holding fowl; for chemicals (2). By A. H. Brain, 63 Old Meeting Street, West Bromwich, Staffordshire. 461,338.
- "FASCIOLIN"; for all goods (2). By Impfstoffwerk München Gesellschaft mit Beschränkter Haftung, Rotmannstrasse 13, München, Germany. 462,094.
- "NORCO"; for fertilisers (2). By C. Norrington & Co., Ltd., Chemical Works, Cattedown, Plymouth. 452,180.
- "BORAZEL"; for internal medicines (3). By Potter & Clarke, Ltd., 60 Artillery Lane, London, E.1. 451,386.
- "VITALITY PIPS" with facsimile signature, "William Ford Freeman," on oval shape ("Vitality" disclaimed); for medicinal chemicals (3). By W. F. Freeman, 70 Kennington Park Road, London, S.E.11. 459,604.
- "DENTINOL"; for a preparation for pyorrhœa, etc. (3). By The Dentinol & Pyorrhœide Co., 1480 Broadway, New York City, U.S.A. B455,225.
- "VORON"; for headache powders (3). By R. Bryson, 9 Stevenson Street, Glasgow. 460,214.
- "PEROXYN"; for medicinal chemicals (3). By E. T. Pearson & Co., Ltd., 35 Gordon Square, London, W.C.1. 460,908. (Associated.)
- "SEXIGENE"; for a medicine (3). By S. Matthews & Co., Ltd., 19-21 Farringdon Street, London, E.C.4. 451,379.
- "HALITOL"; for a medicated mouth wash (3). By The Dental Therapeutic Co., 9 Clinton Place, Seaford, Sussex. 452,197.
- "GLEMPEX"; for medicinal chemicals (3). By Stotherts, Ltd., Albion Works, North Road, Atherton, near Manchester. 462,385.
- "TYCO"; for medicinal chemicals (3). By E. P. Magee, Medical Hall, Farrell Street, Kells, co. Meath. 462,709.
- "VOCALAX"; for throat sprayers (11). By Elizabeth Pegg, 5 Warrington Crescent, Maida Vale, London, W.9. 452,835. (Associated.)
- "SANAX"; for surgical instruments, etc. (11). By Electricitäts-Gesellschaft "Sanitas" mit Beschränkter Haftung, Friedrichstrasse 131d, Berlin, N.24. 457,715.
- "STETHOPHONE"; for surgical instruments, etc. (11). By Western Electric Co., Ltd., Connaught House, Aldwych, London, W.C.2. 461,116.
- "PARENCLIN"; for surgical instruments, etc. (11). By Daisy C. Brown, 199 Plashet Road, Upton Park, London, E.13. 462,280.
- "LONDEX"; for all goods (47). By B. W. Stevenson, 126 Bishopsgate, London, E.C.2. 462,296.
- "DIGNITY"; for goods (47) and for perfumery, etc. (43). By Danish Soap Industry, Ltd., 49a Old Bailey, London, E.C.4. 452,651/652. (Associated.)
- "DUZO"; for a preparation for cleaning artificial teeth (48). By Vince & Co., 15 Cheapside, Lancaster. 460,590.
- "KRUDOX"; for perfumery, etc. (43). By E. Griffiths Hughes, Ltd., 68 Deansgate Arcade, Manchester. 461,395. (Associated.)
- "OLIVER CROMWELL, THE GREAT PROTECTOR," with oval miniature of same; for perfumery, etc. (48). By Frances M. Knight and Mary Owen, 93 Clifton Hill, London, N.W.8. 461,625.

(From "The Trade-marks Journal," October 28, 1925.)

- "KATHODOFONE"; for chemicals (1). By Tri-Ergon Aktiengesellschaft, Tiefenhöfe 7, Zurich, Switzerland. 460,425.
- "LIBRARY"; for photographic chemicals (1). By M. Schwarz, Mommsenstrasse 55, Berlin. 461,683. (Associated.)

Trade Notes

FERNS EMULSIFIERS, LTD., 73 Hatton Garden, London, E.C.1, issue a catalogue of the Ferns Emulsifiers which are especially adapted for reconstituting milk which has been evaporated to dryness.

DISPLAY STAND.—Thomas Kerfoot & Co., Ltd., Bardsley Vale, Lancashire, show in their advertisement a new display stand for packages of the Emulsion series of pastilles. It is supplied free with orders for six dozen tins.

NORTHERN INDIA DRUGS.—The Conservator of Forests, Srinagar, Kashmir, N. India, invites inquiries for crude drugs indigenous to the Jammu and Kashmir State. The list, given in an announcement in last issue, includes belladonna, henbane and aconite.

BURGOYNE, BURBIDGES & Co., LTD., East Ham, London, E.6, have published a brochure giving particulars of newer remedies made by them. It is suggested that chemists should write for copies of this booklet so as to be well informed of these recent advances in therapy.

THE ADVERTISEMENT SUPPLEMENTS printed in colour first devised by this journal are increasingly popular among advertisers. This week this section, in red and black, is occupied by Stafford Allen & Sons, Ltd., Gerard Bros., Ltd., H. R. Napp, Ltd., and Potter & Clarke, Ltd.

“**NASALLO**” CATARRH SNUFF.—Collins, Reynolds & Co., Rencol Works, Windmill Lane, Smethwick, Birmingham, makers of Nasallo catarrh snuff, make a point of the fact that the remedy sells all the year round. The advertisement in this issue shows a suitable window display of the article.

TOTAL FIRE EXTINGUISHER.—The Total Fire Extinguisher Co., Ltd., British Columbia House, 1-3 Regent Street, London, S.W.1, send us particulars of this fire extinguisher. The feature of the apparatus is that when put into use it expels a cloud of powder which confines the fire to a definite area. The apparatus is made in two models, portable type and the larger kind mounted on wheels.

NEW SHOWCARDS.—The Standard Tablet Co., Goldstone Chemical Works, Hove, send us four new showcards produced in connection with their tablets. The cards are of striking design, in red and black, and advertise aspirin tablets, aspergol tablets, neurovim tablets, and formalin throat pastilles. The company inform us that they will gladly send the cards to any chemist stocking these products.

NAPOLEON COUGH-CURE POWDERS.—H. R. Napp, Ltd., 3 and 4 Clement's Inn, Kingsway, London, W.C.2, inform us that they have sent out to all chemists in Great Britain and Ireland a free sample packet of Napoleon Cough-cure Powders. The object of the distribution is that chemists shall know the article and be prepared to meet the demand for the remedy which is expected to result through extensive advertising to the public.

“**ALLENBURYS**” CALENDAR FOR 1926.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, have favoured us with a specimen of the wall calendar for 1926 which they are supplying to chemists for distribution to the public. The calendar measures 15 x 11½ in., the greater part being occupied by a charming picture in colours of children in a garden playing at see-saw. The calendar is of the monthly tear-off variety. Details as to the supply of the calendar were given on the cover of the *C. & D.*, October 10.

Information Department

INFORMATION WANTED

W/2610. “Attie” Salts	H/2610. Radium Elys
A/2410. Brain Aria	H/1610. Spocrysin
C/2410. Butler's Hair Wash	N/2610. Trefolia perfume
L/2710. Dr. Genter's Anti-phthisis Injection	P/2910. “Trianom” for falling hair
A/2210. Lion brand Maltaline face powder	A/2510. Unecda biscuits (for diabetes)
N/2010. Rigelas Patent Frus-mas hair brush	A/2610. Vegex
	B/2710. X.L. flesh gloves

League of Nations

At the Sixth Assembly of the League of Nations, the resolution contained in the Final Act of the Second Opium Conference (*C. & D.*, March 21, p. 428) was examined. This provides for the appointment of a commission to visit certain opium-producing countries for the purpose of studying local difficulties connected with the limitation of the production of opium to quantities required for medical and scientific purposes. The Persian delegate stated that, while his country was anxious to co-operate by all the means in its power in the suppression of the illicit traffic in opium, it was impossible for it to limit its production unless other crops were substituted for the opium poppy. He therefore urged, as at the Second Opium Conference, that a Commission of Inquiry be sent to Persia. The Assembly approved the proposal, and recommended that a Commission should be sent to Persia to study: (a) The existing situation with regard to the cultivation of the poppy; (b) the replacement of a proportion of this cultivation by other crops. The Commission shall consist of not more than three persons to be appointed by the Council: a person having the necessary qualifications to act as chairman, an expert on the agricultural side of the problem to be nominated after consultation with the International Institute of Agriculture, and a person having experience of business conditions and markets in the East and knowledge of transport problems. The Assembly voted a credit of 100,000 gold francs for the inquiry. The report of the Advisory Committee on Traffic in Opium and other Dangerous Drugs, together with the resolutions embodied therein, the complete text of which was published at the time in *THE CHEMIST AND DRUGGIST*, were adopted by the Assembly, which urged on all States which have not already done so to ratify or to adhere to the agreements and resolutions adopted by the First and Second Opium Conferences. The convention drawn up by the Second Opium Conference was signed by the representatives of Canada, Denmark and Hungary on behalf of their respective Governments.

Specialities in Greece

A RIGID control is exerted in Greece over proprietary pharmaceutical preparations, dietetic foods, artificial mineral waters, and also over toilet and cosmetic preparations, such as hair dyes, lotions and dentifrices. It is forbidden to sell or to advertise any of the foregoing articles unless they have been duly licensed by the Ministry of Health. This licence is granted only to medical practitioners and pharmacists established in Greece who are also Greek citizens. In the case of foreign preparations the application for a licence must be submitted by a Greek pharmacist in business in that country. The application for a licence to import and sell a pharmaceutical speciality or other proprietary therapeutic product, an artificial mineral water, a dietetic food, or a hair wash, dentifrice, etc., must be submitted to the Superior Council of Public Health. In the application the complete formula must be disclosed, indicating all the ingredients and their amounts present in the preparation. A declaration to the effect that the use of the product has been sanctioned by an official medical academy or by a Government Board of Health of the country of origin, and also that its sale is authorised in the country of origin, must be included in the document. Samples of the preparation will be submitted to a commission consisting of two doctors and one pharmacist, or chemist, for examination. The Council then submits the result of the examination, as well as its recommendations, to the Ministry of Health, which then issues or refuses the prescribed licence. Licences are not granted for secret remedies or for proprietary preparations the composition of which presents no novel features. Licensed preparations may be sold exclusively in pharmacies, and the sale price, which is fixed by the Superior Council of Public Health, must be printed on the label. The principal ingredients to which the preparation owes its properties have to be stated on the label or wrapper of each package, and must also be mentioned in all advertisements.

Observations and Reflections

By Xrayser III.

Much Food for Thought

was provided by the correspondence columns in your issue of October 24, and I found myself reflecting that your readers must include many clear thinkers and acute critics. Every letter addressed to you was very much to the point—clearly not written for the sake of writing, but obviously a spontaneous expression of opinion, transmitted with the object of assisting you to help the man behind the counter. This is undoubtedly what makes the *C. & D.* correspondence of such peculiar value, and enables you to select from your letter bag an abundance of pithy communications which convey messages of real importance to the trade.

In One Case

we find restated in an original manner the old problem of the value of the higher qualification in pharmacy. It is an old but never stale joke with many in our ranks that they have no use for the pharmaceutical chemist, their experience going to prove, as they think, that the ordinary chemist and druggist is the better business man. This statement overlooks the point that the pharmaceutical chemist, up to now, must also be a chemist and druggist. Else we have to assume the implication that those whose circumstances and ambitions allow and impel them to attain the highest possible qualification are necessarily lacking in business aptitude. But the facts do not justify such a generalisation, as some of the most capable business men I know are pharmaceutical chemists. Differences in numbers must be taken into account. For one keen business man who becomes a pharmaceutical chemist, there are many who are content to become registered as chemists and druggists, and the same naturally applies to those who are not so capable. One may engage scores of managers or assistants, with few, if any, applications from those with the higher qualification. If the same number of each grade were examined as to their business capacity, it would probably be found that the proportions of more or less capable does not differ materially in the two classes.

For Sheer Absurdity

it would be hard to beat the case set out by Mr. R. A. Cripps (*C. & D.*, October 24, p. 597), leading up to the suggestion that jams flavoured with various fruit kernels ought logically to be labelled in accordance with the new poisons regulations. I can well remember the absurd positions created by successive interpretations of the 1868 Act as applied to the then existing Poisons Schedule. But the difficulties experienced at that time, when we were continually being soothed by reference to the fact that the law takes no account of trifles, were as nothing in complexity to the problems of to-day. Letters received from chemists who are genuinely wishful to comply strictly with all the law's requirements satisfy me that much anxious thought is having an unhappy, wearing effect upon many good men in pharmacy, and this ought not to be. There is much force in Mr. Cripps's concluding question, but is not the way barred somewhat owing to the attitude taken up by our representative bodies?

The Outlook,

if all proprietary medicines are to be registered, is almost illimitable. Chemists who have their own proprietaries—and this probably includes everyone engaged in retail business—should obviously be on the alert, or they may find themselves afloat, rudderless, in a sea of troubles. I would like to impress upon your readers the desirability of turning back to the *C. & D.* of October 24 and reading, or again perusing, the letter signed "Proprietary." Afterwards, they ought to settle down to do some good hard thinking, and follow this up by discussing the position with their fellow-chemists. With such threatening appearances on the pharmaceutical horizon, the major portion of the time available at chemists' meetings should from now on be devoted to consideration of the difficult positions created by the new poisons regulations and those likely to be created if all proprietaries are to be registered.

The Incidence of Coincidences

in my experience is remarkable. Your "Commercial Compendium" in the issue of October 24 includes cuttlefish bone, and speaks of its uses. During recent days there has been recorded in the newspapers a prosecution for coining; in the course of the lawyer's charge against the defendants he stated that the police had found among the alleged coiner's equipment some cuttlefish bone, which had been used as a mould for the coins, and he said that the use of this article for the purpose was unique. I fancy there are not a few of the older pharmacists of Birmingham and Sheffield who could testify to the selling of cuttlefish bone to manufacturing jewellers for casting small gold and silver articles. It is almost a perfect substance for taking a fine copy of the pattern. The use of it as a medicinal agent had practically expired two hundred years ago, but prior to that time it was sometimes used as a remedy for asthma and as a diuretic. The most constant service it has rendered, however, is the one you mention, namely, as an ingredient in dentifrices. We cannot learn enough about the details of old London, so that it is with a little satisfaction that we are told by William Salmon that in his day (1695, to be precise) cuttlefish bone "is now sold (for the most part) at the Iron-mongers in Foster Lane, London." Foster Lane, with its well-known church, St. Vedast's, is familiar to all who frequent the City.

Much Clerical Work

is an undoubted nuisance to the busy dispenser, but there seems to be no escape from the steadily increasing task of recording something about what we dispense as medicine. When our services were secured at a cheap rate for Insurance dispensing purposes, we were promised that work of this kind should be reduced to a minimum, and we were furnished with duplicate scripts to save us the trouble of copying the prescriptions. Later this concession was withdrawn, so that some economy might be effected in the supply of paper, and the law was specially amended to obviate the necessity of copying prescriptions ordering scheduled poisons. Not unreasonably, one of your correspondents asks what recompense we receive for all this extra work and trouble. The solution of this little but important problem need not necessarily be unsatisfactory, provided always that our representatives who negotiate N.H.I. terms for us are properly stimulated and rise to the occasion.

The Decreased Use of Leeches

finds expression in inquiry by one of your correspondents as to the value of a leech jar as a curio. It would appear that it was only during the last century that any figures became available to show the number which were used in this country and in France. In 1822 it was said that over seven million were annually imported into London, and that in Paris alone over three million were used per annum. The number imported into France was, from 1827 to 1846, over thirty-four million per annum; the figures gradually fell to ten and a-half million in 1852. In this country it is estimated the imports had fallen to about two million by 1870. These figures applied to the world in general would give an enormous total. If we may judge from the statement made by the late Professor Beauregard, the decline was very rapid; for he said that by the end of the century the number of leeches used by the Paris hospitals had fallen from over a million in 1837 to only a few hundreds at the end of the century. This must agree with the experience of the agents in Great Britain. The use of these creatures in blood-letting is a very ancient one. The earliest mention of such use was made by Themison (c. 130 B.C.), the founder of the Methodic sect. In ancient and mediæval books on physic there are usually to be found directions for dislodging leeches which have found admission to the alimentary canal with the drinking water. Such incidents must be quite uncommon to-day because of the careful control of water supplies. Salt and vinegar were the agents relied upon when forceps could not be used, but some authorities recommended the use of bugs or of the vapour of pounded bugs.

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Editorial Articles

Poison Law Problems

If a Part I poison is prescribed and dispensed by *itself*, entry in the prescription book is not sufficient. It should, in addition to the directions, be labelled "Poison," entered in the Poisons Book, and a signature taken.

A CORRESPONDENT sends us the above quotation from the house organ of well-known wholesale druggists, and is disturbed with what looks like a new view of the exemption in the Pharmacy Act, 1868, as regards the labelling of dispensed medicine. The question whether a Part I poison prescribed by itself and duly dispensed is required to be entered in two books, (1) the prescription-book, (2) the poisons register, labelled "poison," and duly signed for, arises from a literal reading of Section 17 of the Pharmacy Act, 1868. If the dispensing of a prescribed Part I poison were treated purely as a sale, then the poisons register entry would be adopted and the entry in the prescription-book does not apply. On the other hand, if the statement is accepted without qualification as applying to a prescribed medicine, there is a little difficulty owing to the wording of Section 17, which says "nor apply to any article when forming *part of the ingredients* of any medicine dispensed by a person registered under this Act [Pharmacy Act, 1868]." The wording of the Arsenic Act is somewhat similar: "When the same forms *part of the ingredients* of any medicine required to be made up or compounded according to the prescription of a legally qualified medical practitioner," etc. Whether the Part I poison *per se* should be entered in the poisons book or the prescription-book depends on what is meant by "part of the ingredients," the assumption being that a poison *per se* cannot at the same time be "a part of the ingredients." As we shall show, this expression is rather a ponderous way of saying that if a poison is contained in a prescription the method of labelling applying to the retail sales is not to be followed. To label it poison and take a signature is undoubtedly contrary to the spirit of the exemption provided by the Act that a sick person should not be subject to the usual routine of a sale when *bona fide* medicine is prescribed. One can imagine the effect on a neurasthenic person whose dose of luminal tablets is labelled "Poison" and who is required by the chemist to sign the poisons book and state the purpose for which the poison is required. It may be added that apart from the desire not to alarm a patient by labelling medicines "Poison," especially those used internally, it was considered that if a poison was ordered alone in a prescription the danger of accidental poison is obviated by the directions as to dosage. Anyway, such a reading of the section as suggested in the above quotation would nullify the dispensed medicine exemption from labelling. The only legal case which appears to have a bearing on the subject is that of *Berry v. Henderson* before the Queen's Bench in 1870. Briefly, a forged prescription was dispensed containing Scheele's prussic acid ssj . in rose water ssj . The chemist labelled it "Caution—for external use," with his name and address, and entered it in the prescrip-

tion-book. The magistrates fined him because he sold the poison to a person unknown to him and not introduced by any person known to him, and did not fulfil the conditions of the poisons book, but simply entered it in the prescription-book. The Queen's Bench afterwards quashed the conviction, the appeal being supported by the Pharmaceutical Society. It was held that the medicine or lotion was a medicine within the meaning of Section 17 of medicine dispensed by a registered person; that the case was therefore taken out of the enacting of the section as to poisons; that the appellant had complied with the proviso, and was therefore not liable to be convicted. The case does not settle whether the hydrocyanic acid was a "part of the ingredients," as the definition in the Poisons Schedule of that day was simply "Prussic acid." It is obvious it would be a Part I poison *per se* under the schedule in the Poisons and Pharmacy Act, 1908. However, Mr. Justice Lush, in giving judgment, said:

Did this prussic acid form part of the ingredients of a medicine dispensed by a registered person? It did strike me at first, on reading the clause, that it applies only to cases where the poisonous article is one of several ingredients, so that perhaps its poisonous qualities are modified in a more or less degree by the other ingredients; but then, I think, by giving that interpretation, we should make it very difficult to apply the Act. . . . It is sufficient that this is a compound, and is a medicine which might have been prescribed by a medical man as a lotion. . . . It is found in the case that the ingredients were entered in what the appellant calls his prescription-book, which, I think, satisfies the requirements of the Act, as "a book kept for the purpose," a book in which he enters all the prescriptions which he makes up.

The case is not quite on all fours, but it is a strong argument that a Part I poison—even if prescribed *per se*—should be entered in the prescription-book, and the law is fulfilled. It happens, however, that there is stronger evidence. Soon after the Pharmacy Act, 1868, was passed medical men who were not "apothecaries" (mentioned in Section 17 as exempt from the labelling provisions) were instrumental in promoting an amending Bill which became the Pharmacy Act, 1869. This short Act, passed on the very day that Mr. Berry dispensed the hydrocyanic acid lotion, the subject of the above action, contained an amplification of the dispensing exemption as follows:—

Nothing contained in section 17 of the said recited Act [Pharmacy Act, 1868] shall apply to any medicine supplied by a legally qualified medical practitioner to his patient or dispensed by any person registered under the said Act, provided such medicine be distinctly labelled with the name and address of the seller and the ingredients thereof be entered with the name of the person to whom it is sold or delivered in a book to be kept by the seller for that purpose.

It was contended at the time that this saving section, so far as it related to chemists, was unnecessary, but it turns out to be useful, as showing by its slightly different wording that the exemption from labelling was intended to, and does, apply to all dispensed medicine.

Japanese Peppermint Oil and U.S.

THE position of Japanese peppermint oil this week has again been one of extreme animation, and a very large business, mostly speculative, has been done in all forward positions at advancing rates. Persistent rumours that the United States are at present buyers of dementholised peppermint oil on the English and Japanese markets are no doubt having a decidedly "bullish" influence on the market, apart from the genuine consuming demand on the part of English and Continental houses. At an opportune moment, therefore, we are able to give the official U.S. attitude in regard to

the importation of Japanese peppermint oil into their country. The following reply was received in response to an inquiry on the point by the New York Quinine and Chemical Works, Inc., in a letter addressed to the United States Department of Agriculture:—

New York, October 6.

In reply, you are advised that this oil is not a peppermint oil, and should not be invoiced, sold, or in any way referred to as peppermint oil, whether prefixed by Japanese or not. There is enclosed herewith copy of item 375 from service and regulatory announcements chemical 23, which gives the Bureau's attitude regarding corn-mint oil or field-mint oil. You will note that this item does not prohibit the entry into the United States of this product for food or drug use. It simply imposes upon it the usual requirements regarding substitutes, to which this item makes reference, and which is stated in a somewhat more general way in Regulation 30.b. of the Federal Food and Drugs Act. Corn-mint oil, as such, is an article to which the Bureau has no grounds for taking exception. It has certain perfectly definite legitimate uses. Being a product, however, liable to be used as a substitute for true peppermint oil, restrictions are placed on this article at time of entry to ensure that it is not used in food or drug products which purport to be or to contain peppermint oil U.S.P., or which directly or indirectly are labelled in such a way as to indicate that they contain or are flavoured with genuine peppermint oil. In general we would contemplate the use of the oil without distillation, and that the goods were passed direct from the importer to the manufacturer of the product. If the oil were to be distilled, the requirement would be made that the importer furnish satisfactory proof as to the use regarding portion which has been distilled, and that the rejections from the distillation be destroyed, or that they be employed for some purely technical purpose which was satisfactory if, in fact, such suitable technical use could be thoroughly established.

It will be observed that the Department of Agriculture in the above letter takes the view that the oil distilled from *M. arvensis* is not a peppermint oil at all. That this view is erroneous is shown in a recent article by E. M. Holmes (*C. & D.*, October 10, p. 504), who points out that "it is necessary to apply the term peppermint oil to all which possess the well-known peppermint taste and odour and to distinguish them for commercial purpose by an additional term that will indicate that in commerce they are recognised as different in quality. . . ." In the official pamphlet referred to above, as published in 1923, the U.S. authorities state: "Corn-mint, or field-mint, is the leaves and flowering tops of *Mentha Arvensis*, L. Corn-mint oil, field-mint oil is the volatile oil obtained from corn-mint. When its normal composition is changed by partial dementholisation, or otherwise, it should be clearly labelled to indicate that fact. Corn-mint oil is not recognised in the United States Pharmacopœia or National Formulary, and should not be substituted for the recognised oil of peppermint derived from *mentha piperita* in pharmacopœial and formulary preparations without appropriate label declaration." It is further pointed out that foods, beverages, and confections flavoured with "corn-mint" oil should not be designated by such unmodified terms as "mint" oil or "mint flavoured." It will be interesting to observe, therefore, what those American manufacturers of confectionery, who are about to use Japanese peppermint oil, propose to call their products. So far as dental preparations are concerned, manufacturers are faced with no such difficulty. As large quantities of peppermint oil are used in this direction, it is solely a matter for the manufacturer to decide whether to change his formula or pay the price for American. So far as we are aware, the term "corn-mint" is not known outside the United States, where the authorities have apparently adopted this description solely as a means of distinguishing the American oil distilled from *M. piperita* from *M. arvensis*. Since we last commented on American peppermint oil we under-

stand from an American contemporary that the peppermint oil yield this year will be somewhere between 160,000 lb.—200,000 lb., or considerably less than the forecast of the Department of Agriculture, which was 300,000 lb. (*C. & D.*, October 3, p. 477). If the position in American peppermint is so acute as these figures appear to suggest, pressure will, no doubt, be brought to bear on the authorities to modify their present views regarding "corn-mint" and peppermint. Meanwhile, as stated, there has been considerable speculation, Japan being reported to be repurchasing on this market. The spot position is acute with supplies short, and parcels arriving are eagerly awaited by consumers.

Government Chemist's Report

THE report of the Government chemist on the work of the official laboratory for the year ended March 31, 1925 (Stationery Office: 1s. 6d.) shows a decided increase in the number of samples examined, alike at the two London premises and at the nine "chemical stations" that have been established at various ports. Without analysing the figures, it may be briefly mentioned that they amount to 448,106 for the year under review, compared with 390,421 in the previous year. The staff, including ninety-seven laboratory assistants, numbers 170; and it appears that "chemists holding official appointments overseas . . . , in some cases, have attended the laboratory for a course of training." Several investigations of direct or indirect interest to chemists in business have, as usual, been undertaken in the course of the twelve months. Only four "drugs" were examined in the course of proceedings under the Sale of Food and Drugs Acts: three of these were samples of cream of tartar, and the fourth was a dispensed medicine. Samples referred, under the Dangerous Drugs Act, 1920, for testing while passing through the Customs numbered 113, of which twenty-two were found to contravene the provisions of the Act: in this connection it may be noted (from another page of the report) that charges of unlawful possession of "dangerous" drugs, so far as the work of the laboratory staff is concerned, have come down from twenty-three to seven per annum. Of seventy-one samples of sheep dips submitted for approval, ten were reported as defective—by which is meant that the resulting bath, prepared according to the suggested directions, would not contain sufficient arsenic, tar acids or other active ingredient to be considered effectual. During the year nine fertilisers and sixteen feeding stuffs have been analysed:—

The fertilisers consisted of basic slag, mineral phosphates, bone-meal and sulphate of potash. Two samples of basic slag were found to contain mineral phosphate; one sample contained the guaranteed quantity of citric-soluble phosphates, but was deficient in total phosphate, and another sample was deficient in citric-soluble phosphates and was not finely ground. A sample of slag phosphate was deficient in citric-soluble phosphates.

The feeding stuffs do not figure very creditably in the report, adulteration or deficiency ranging from 55 per cent. downwards. The Safeguarding of Industries Act and the Dyestuffs (Import Regulation) Act appear to have occasioned copious routine work (9,433 and 535 samples respectively) of no special interest. Supplies of "medicines and drugs" ordered by the Crown Agents for the Colonies were examined in ninety-three instances, and were passed as conforming to specification. The figures in respect of spirits of all kinds are, as usual, heavy, though not so heavy as those for either tobacco or wines; the importance of the Government chemist's work to the revenue may be instanced by the items that drawback had been improperly claimed in thirty-four cases, and that thirty-one out of 100 samples of methyl alcohol were found liable to duty on the ground of purity. As has happened previously, some of the samples of "non-alcoholic" beer submitted yielded appreciable percentages of proof spirit. Before

we leave the subject of beverages, it may be noted as a curious detail that ninety samples of beer, wort or materials used in brewing (out of 1,257 tested) were found to contain arsenic in slight excess of the limit laid down by the Royal Commission nearly a quarter of a century ago. The routine examination of saccharin, table waters and condensed milk yielded little of interest, though in the case of the last-named it was found that foreign manufacturers had not invariably fallen into line with the new Regulations. On the question of tobacco denaturants the report remarks:—

Various substances, such as sulphur, asafetida, sago flour, tar oil, carbolic and cresylic acids, moss litter, soda ash, borax, hellebore, cayenne, lampblack, saltpetre, anthracene oil and bone oil are used in denaturing offal tobacco which is to be employed for the manufacture of sheep dips or horticultural preparations. These substances are mixed with the offal according to approved formulae, for the purpose of rendering the tobacco unsuitable for use for smoking purposes, and 209 samples of these materials were approved.

Essential oils and essences submitted for approval as flavourings for tobacco were condemned in sixty-nine cases out of 317. The work of the laboratory covers a wide field, as is clear from the following passage in connection with samples submitted by the Office of Works:—

As is frequently the case, well-known materials were put up as being specially valuable for particular uses. Thus a cement water-proofing material was found to consist of slaked lime mixed with a little cement, plaster and lime soap. Cleaning preparations under different names consisted of acid sodium sulphate, a by-product in the manufacture of nitric acid. Special lubricants for cars were ordinary oils with a little graphite, the value of which, if any, could only be decided after long trials. A liquid for use on old roof timbers was a solution of soda with a little coal-tar creosote oil.

Another fact of general interest comprised under the same heading as the paragraph just cited is that corrosion of iron pipes laid in magnesite flooring was found to be due to the corrosive effects of the chlorides present. Among the curiosities of the report may be instanced the examination, on behalf of the Public Record Office, of an old wax seal which had disintegrated: it was found that the growth of mould was the cause. A discreetly brief entry informs us that the Privy Council submitted questions relating to the inclusion of certain articles in the "Schedules" of the Poisons and Pharmacy Act.

American Notes

By "The Man from London."

THE CAMPAIGN against price cutting is in full swing in the United States, and the "Pharmaceutical Era" is offering prizes of \$25 each for the best articles for and against the "one cent" price-cutting sales that are more or less popular with some druggists.

DR. CASWELL A. MAYO is now dean of the New Jersey College of Pharmacy, succeeding Robert P. Fischelis, who resigned last July. Dr. Mayo will also act as professor of pharmacy. Dr. Mayo has had an honourable career as editor of several drug-trade journals (among others the "American Druggist"), and is an ex-president of the American Pharmaceutical Association. The new building under construction is to cost a quarter of a million dollars, and will accommodate 230 students at one time. There is laboratory space for 345 students, and the main lecture hall has a seating capacity of 400.

HEAVY ILLICIT DRUG PENALTIES.—One of the heaviest sentences ever imposed on a narcotic drug peddler was passed recently by Judge Bondy, New York City, on Michael Goldstein, who was sentenced to five years' imprisonment. It was proved that Goldstein was doing a large business, and employed a number of peddlers to sell his illicit wares. When arrested the federal agents found 680 "decks" of heroin on his person, and a trunk in his home contained \$1,700, the result, so it is said, of one day's sale of narcotic drugs. Another defendant, a negro, also doing a big narcotic trade, was sentenced to four years in Atlanta Penitentiary.

The New United States Pharmacopœia

Vitamin-Standard and Biological Assays

ESSENTIAL modifications in the standards of purity and methods of assay in the U.S.P. X, in the form of notes on the single monographs, were recorded in the issues of THE CHEMIST AND DRUGGIST of October 17, p. 555, and October 24, p. 591. In view of the inclusion in this work of such innovations as biological methods of assay, and also of a vitamin test for cod-liver oil, features which figure for the first time in an official pharmacopœia, we deem it a matter of special interest to our readers to deal with these subjects collectively, before continuing our series of notes on the single monographs.

Vitamin A Assay for Cod-liver Oil

When assayed for its vitamin A potency by the process described below, cod-liver oil should contain at least 50 units per gram and must be labelled: "This unit is not a measure of the antirachitic activity of cod-liver oil." This assay, however, is optional. It is based upon the estimation of the minimum amount of cod-liver oil necessary to meet specific growth-promoting requirements in standard test animals, i.e., albino rats. The unit is described as the minimum daily amount of cod-liver oil required to cure induced symptoms of vitamin A starvation in young albino rats, and to cause a gain in weight of from 10 to 20 grams within a period of thirty-five days under the conditions of growth and diet specified in this assay.

Assay.—Place on a vitamin A free diet, rats not less than twenty-five days and not more than twenty-nine days old, and weighing not less than 35 grams, and not more than 45 grams. The basal diet is to be composed as follows:—

Casein, or desiccated fresh meat, rendered free from vitamin A	13 per cent.
Salt mixture, such as that of Osborne and Mendel or McCollum and Davis	4 per cent.
Starch, sufficient to make	100 per cent.

Use sufficient dried brewer's yeast to meet the vitamin B requirements of the animal, mixing it with the basal diet during the vitamin A free period. The rats shall begin receiving the cod-liver oil to be tested after not less than seven days of stationary or declining weight, and from the time of feeding the test oil they shall be kept in separate cages. The test period shall continue for thirty-five days and the potency of the oil shall be judged from the rat or rats showing a gain on the thirty-fifth day of between 10 and 20 grams over the weight at the beginning of the test, and the cure of the induced symptoms of vitamin A starvation. Each test shall be controlled by at least two standard rats which have received no cod-liver oil. These animals may serve as controls for any number of concurrent tests on which the same basal diet is used. No oil shall be labelled as assayed by the U.S.P. method unless it contains at least 50 units per gram of oil. The diet for rats used as breeders shall be composed as follows:—

Finely ground whole wheat	65 per cent.
Whole milk powder	33 per cent.
Sodium chloride	1 per cent.

Biological Assays

Biological methods of assay have now been made compulsory for the following drugs: Aconitine, aconite, cannabis indica, digitalis, ergot, squill, strophanthus, solution of epinephrine hydrochloride, and solution of pituitary. In the preface to the Pharmacopœia it is stated that in order to facilitate the adoption of the new standards and to provide a greater degree of uniformity in the application of these assays, the officials of the Bureau of Chemistry of the United States Department of Agriculture at Washington have indicated their willingness to supply substances conforming to the new Pharmacopœia standards. We give below these new standards and the methods of assay.

ACONITE

Aconite, in the form of tincture, administered subcutaneously to guinea pigs, has a minimum lethal dose not exceeding 0.0004 c.c. of tincture for each gram of body weight of guinea pig.

Assay.—Use guinea pigs weighing from 275 grams to 325 grams each and in good health. Dilute the tincture with distilled water to make the dose about 1 c.c., and inject into the guinea pig under the skin of the abdomen. The standard dose must kill within six hours at least two of every three guinea pigs injected.

ACONITINE

Aconitine, administered subcutaneously to guinea pigs, has a minimum lethal dose of not less than 0.000000055 gram, and not more than 0.000000065 gram for each gram of body weight of guinea pig.

For the assay, dissolve the aconitine in distilled water with the aid of a little acetic acid and proceed as directed under Tincture of Aconite.

DIGITALIS

Digitalis, in the form of its tincture properly diluted and injected into the ventral lymph sac of a frog, has a minimum systolic dose of not less than 0.0055 c.c. and not more than 0.0065 c.c., equivalent to not less than 0.000000046 gram and not more than 0.000000054 gram of ouabain, for each gram of body weight of frog.

To prepare the tincture of digitalis, 100 grams of digitalis in fine powder is packed firmly in a cylindrical glass percolator, provided with a stop-cock, and arranged with a cover and a receptacle suitable for volatile liquids, and percolated slowly with purified petroleum benzin until a few drops of the percolate evaporated from filter-paper leave no greasy stain. Reject the benzin percolate. Remove the drug from the percolator and expose it to the air until the odour of benzin is no longer noticeable. It is then moistened with a mixture of 4 volumes of alcohol (94.9 per cent.) and 1 volume of water to render it evenly and distinctly damp and to maintain it so after macerating for six hours in a tightly covered container. Transfer to a percolator, pack it firmly and pour on enough of the

PHYSICAL CONSTANTS OF U.S. PHARMACOPŒIA X. FIXED OILS

Oleum	Botanical source	Specific gravity at 25°C.	Saponification value	Iodine value	Remarks
Amygdalæ Expressum	<i>Amygdalus communis</i>	0.910–0.915	191–200	93–100	—
Gossypii Seminis	<i>Gossypium herbaceum</i> and other species	0.915–0.921	190–198	105–114	—
Lini	Linseed	0.925–0.935	187–195	not below 170	Unsaponifiable matter: not over 1.5 p.c.
Morrhuae	<i>Gadus morrhua</i> and other species	0.918–0.927	180–190	140–180	Unsaponifiable matter: not over 1.5 p.c. Vitamin A. potency: 50 units per gram (optional).
Olivæ	<i>Olea europæa</i>	0.910–0.915	190–195	79–90	—
Ricini	<i>Ricinus communis</i>	0.945–0.965	179–185	83–88	—
Theobromatis	<i>Theobroma Cacao</i>	0.973 (about)	188–195	33–38	Melting point: 30°–35°C.; refractive index at 40°C.: 1.4537–1.4578
Tiglii	<i>Croton Tiglium</i>	0.935–0.950	200–215	104–110	—

menstruum to saturate the powder and leave a stratum above it. When the liquid begins to drop from the percolator close the lower orifice, and, having closely covered the percolator, macerate for twenty-four hours. Then allow the percolation to proceed slowly, gradually adding sufficient of the menstruum until the percolate measures 950 c.c. A portion of this percolate is then assayed, whereupon the volume of the finished tincture is adjusted to conform to the required standard by adding sufficient of the menstruum, if necessary.

Assay.—Use healthy frogs of the same species (*Rana pipiens*, Schreber) and of a fairly uniform size (20 to 30 grams).

Storage.—Before use, the frogs should be stored in constant temperature tanks kept in a cool room, preferably where the temperature does not rise above 15° C. The bottom of the tanks should be covered with running water.

The day before the frogs are to be used, a sufficient number should be taken from the storage tanks and placed in a tank, the temperature of which is approximately 20° C. One hour before the assay, they are weighed to within 0.5 gram and placed in wire cages or containers in a tank containing water to the depth of about 1 cm. (½ inch), the water being kept at a uniform temperature of 20° C. during the assay.

Dosage.—The doses of the tincture to be given the frogs are calculated according to the weights of the frogs and are injected into the ventral lymph sac by means of a pipette or glass syringe, which is graduated in hundredths of a cubic centimetre. The injection is made into the lymph sac through the floor of the mouth, care being taken not to puncture the skin. The amount of fluid to be injected into the different frogs should be as uniform in quantity as possible, approximately 0.015 c.c. for each

PHYSICAL CONSTANTS OF U.S. PHARMACOPEIA X. ESSENTIAL OILS

Oleum	Botanical source	Specific gravity 25° C.	Optical rotation 100 min., 25° C.	Refractive index 20° C.	Solubility in alcohol by volume	Standards
Amygdalæ amaræ	<i>Amygdalus communis</i> and other kernels containing amygdalin	1.038–1.060	from inactive to +0° 10'	1.5428–1.5439	1 in 2 (70 p.c.)	85 p.c. of benzaldehyde; not less than 2 nor more than 4 p.c. hydrocyanic acid
Anisi	<i>Pimpinella Anisum</i> or <i>Illicium verum</i>	0.978–0.988	+1° to –2°	1.5440–1.5600	1 in 3 (90 p.c.), with slight cloudiness	Congealing point: not below +15° C.
Aurantii	<i>Citrus Aurantium</i> , var. <i>sinensis</i>	0.842–0.846	+94° to +99°	1.4723–1.4737	1 in 2 (90 p.c.), not clear	—
Cajuputi	Varieties of <i>Melaleuca Leucadendron</i>	0.912–0.925	not over –4°	1.4660–1.4710	1 in 1 (80 p.c.)	—
Cari	<i>Carum Carvi</i> ..	0.900–0.910	+70° to +80°	1.4880	1 in 8 (80 p.c.)	50 p.c. by vol. of carvone
Cadinum	<i>Juniperus</i>	0.980–1.055	—	—	partially soluble	—
Caryophylli	<i>Orycedrus caryophyllus</i> aromaticus	1.038–1.060	not over –1° 10'	1.5300–1.5350	1 in 2 (70 p.c.)	82 p.c. by vol. of eugenol
Chaulmoogræ	<i>Taraktogenos Kurzii</i> , or <i>Hydnocarpus</i> species	about 0.950	+48° to 60° (10 grams in 100 c.c. chloroform)	—	—	Saponification value: 196–213; iodine index: 98–104
Chenopodii	<i>Chenopodium ambrosioides</i> , var. <i>anthelminticum</i>	0.955–0.980	–4° to –10°	1.4723–1.4770	1 in 8 (70 p.c.)	65 p.c. of ascaridol
Cinnamomi	<i>Cinnamomum Cassia</i>	1.045–1.063	+1° to –1°	1.6020–1.6060	1 in 2 (70 p.c.)	80 p.c. of cinnamic aldehyde, by vol.
Coriandri	<i>Coriandrum sativum</i>	0.863–0.875	+8° to +13°	1.4630–1.4760	1 in 3 (70 p.c.)	—
Eucalypti	<i>Eucalyptus Globulus</i> and other species	0.905–0.925	–10° to +10°	1.4600–1.4690	1 in 4 (70 p.c.)	70 p.c. of eucalyptol, Congealing point: not below –15.4° C.
Fœniculi	<i>Feniculum vulgare</i>	0.953–0.973	+12° to +24°	1.5280–1.5380	1 in 8 (80 p.c.) 1 in 1 (90 p.c.)	Congealing point: not below +3° C.
Juniperi	<i>Juniperus communis</i>	0.854–0.879	0° to –15°	1.4790–1.4840	1 in 4 (94.9 p.c.), not more than slight cloudiness	—
Lavandulæ	<i>Lavandula Spica</i>	0.875–0.888	–3° to –10°	1.4600–1.4640	1 in 3 (70 p.c.)	30 p.c. of esters (linalyl acetate)
Limonis	<i>Citrus medica</i> , var. <i>Limonum</i>	0.851–0.855	+57° to +64°	1.4744–1.4755	1 in 3 (94.9 p.c.)	4 p.c. of aldehydes (citral)
Menthæ Piperitæ	<i>Mentha piperita</i>	0.896–0.908	–23° to –33°	1.4600–1.4710	1 in 4 (70 p.c.), not more than slight opalescence	5 p.c. of esters (menthyl acetate); 50 p.c. total menthol
Menthæ Viridis	<i>Mentha spicata</i>	0.917–0.934	–38° to –56°	1.4820–1.4900	1 in 1 (80 p.c.)	43 p.c. of carvone, by vol.
Myristicæ	<i>Myristica fragrans</i>	0.859–0.924	+12° to +30°	1.4780–1.4895	1 in 3 (90 p.c.)	—
Pini Pumilionis	<i>Pinus montana</i>	0.853–0.869	–4° 30' to –9°	1.4750–1.4800	1 in 10 (80 p.c.)	5 p.c. of esters (bornyl acetate)
Rosmarini	<i>Rosmarinus officinalis</i>	0.894–0.912	0° to +15°	1.4660–1.4720	1 in 10 (80 p.c.)	2.5 p.c. of esters (bornyl acetate); not more than 10 p.c. total bornol
Santali	<i>Santalum album</i>	0.965–0.980	–15° to –20°	1.5040–1.5080	1 in 5 (70 p.c.)	90 p.c. of santalol
Sassafras	<i>Sassafras variifolium</i>	1.065–1.077	+3° to +4°	1.5250–1.5350	1 in 2 (90 p.c.)	—
Sinapis Volatile	<i>Brassica nigra</i> , <i>Brassica juncea</i> , or synthetic	1.013–1.020	inactive	1.5268–1.5280	all proportions	93 p.c. of allyl isothiocyanate
Terebinthinæ	<i>Pinus palustris</i> and other species	0.854–0.868	active, but variable	1.4680–1.4780	1 in 5 (94.9 p.c.)	—
Terebinthinæ Rectificatum	as above	0.853–0.862	as above	as above	as above	—

gram of body weight of frog. In case the alcohol content in any preparation after dilution is higher than 20 per cent., the preparation may be subjected to careful evaporation and subsequent addition of distilled water until the original volume is restored and the alcohol content is not above the per cent. named. The animal is replaced in its cage in the tank after injection, the temperature being maintained at 20° C. About fifty-eight minutes from the time of injection, each frog is pithed, the heart is exposed, and its condition examined. For the correct end-reaction, at the expiration of one hour from the time of injection, the ventricle must be in systolic standstill, while the auricles are widely dilated. Following mechanical stimulations, feeble contractions may occur in the auricles and localised contractions in the ventricle, but no general contraction is allowable. If, when the lymph sac is opened to expose the heart, any of the injected drug is found unabsorbed, the animal must be discarded and not considered in the results obtained.

CANNABIS INDICA

Cannabis, in the form of the fluid extract, administered by the mouth to dogs in doses not exceeding 0.1 c.c. for each kilogram of body weight of dog, produces a degree of inco-ordination equivalent to that caused by the same dose of the standard fluid extract of cannabis, prepared as directed below.

Standard Fluid Extract of Cannabis

Prepare a composite fluid extract, representing at least ten different lots of cannabis, conforming to the official botanical description, and administer this fluid extract in gelatin capsules to dogs by the mouth. This standard fluid extract must be so adjusted that it will produce inco-ordination in dogs which have been found to be susceptible to the action of cannabis when administered in doses of 0.03 c.c. for each kilogram of body weight of dog.

For the assay, use adult dogs which weigh less than 15 kilograms and which are susceptible to the action of cannabis. The dogs must not be fed for twelve hours before being used, and observations should be made within one hour after administration. The same animal must not be used for testing purposes at shorter intervals than three days. Administer the fluid extract in gelatin capsules by the mouth.

ERGOT

Ergot, in the form of the fluid extract, administered by intramuscular injection to single-comb white Leghorn cocks, in doses not exceeding 0.5 c.c. for each kilogram of body weight of cock, produces a darkening of the comb, corresponding in intensity to that caused by the same dose of a standard fluid extract of ergot, prepared as follows:—

Standard Fluid Extract of Ergot

Prepare a composite fluid extract, representing at least ten different lots of ergot, conforming to the official botanical description. This standard fluid extract, which must be aged for at least six months before being standardised by the method described below, and must be preserved in a vacuum, when administered by intramuscular injection in doses not exceeding 0.5 c.c. per kilogram of body weight of cock, produces darkening of the comb of a single-comb white Leghorn cock which is less than eighteen months of age, and which weighs approximately 2 kilograms.

The official fluid extract of ergot is prepared as follows:—1,000 grams of ergot in coarse powder is packed in a cylindrical percolator and slowly percolated with purified petroleum benzine until a few drops of the percolate leave no greasy stain when evaporated from filter-paper. The benzine solution is rejected, the drug removed from the percolator and dried by exposure to the air. The drug is then moistened with a sufficient quantity of a menstruum consisting of 20 c.c. of hydrochloric acid (32 per cent.) and 980 c.c. of dilute alcohol (49 per cent.); macerate for six hours, pack it in a cylindrical percolator, add the remainder of the menstruum, and when this has just disappeared from the surface, gradually add dilute alcohol, constantly maintaining a stratum of liquid above the drug. When the liquid begins to drop from the percolator, close the lower orifice, and, having closely covered the percolator, macerate for forty-eight hours and then allow the percolation to proceed slowly, gradually adding dilute alcohol until the drug is exhausted. Reserve the first 850 c.c. of the percolate, recover the alcohol from the remainder of the percolate, and concentrate the residue to a soft extract at a temperature not exceeding 60° C. After dissolving the soft extract in the reserve liquid assay a portion, and

from the result thus obtained adjust the volume of the finished fluid extract by the addition of sufficient dilute alcohol to make it conform to the required biological standard.

Assay.—For the test, single-comb white Leghorn cocks should be used, which are less than eighteen months of age, and weigh approximately 2 kilograms. Injections are made deeply into the breast muscles, and the effects are observed within one hour to one hour and a half after the administration of the drug. The same cock must not be used for testing purposes at shorter intervals than two weeks.

SOLUTION OF EPINEPHRINE HYDROCHLORIDE

Solution of epinephrine hydrochloride, containing in each 100 c.c. not less than 0.095 and not more than 0.105 gram of epinephrine, when diluted with physiological solution of sodium chloride in the proportion of one part of the solution of epinephrine hydrochloride to 99 parts of the saline solution, and injected intravenously into dogs by the method described below, produces a rise in the systolic blood pressure of the dog corresponding to that produced by an equal amount of the standard solution of epinephrine hydrochloride prepared as directed below.

Standard Solution of Epinephrine Hydrochloride

Dissolve 0.05 gram of standard epinephrine in 5 c.c. of N/10 hydrochloric acid, and dilute this to 50 c.c. by the addition of distilled water, thus making a 1 in 1,000 solution. For the assay, add 1 c.c. of this 1 in 1,000 solution to 99 c.c. of physiological solution of sodium chloride. This dilute solution (1 in 100,000) must be freshly prepared when needed. On account of the possibility of deterioration, the 1 in 1,000 solution must have been recently prepared. It will keep for a short time if preserved in amber-coloured bottles in a refrigerator, but it must be discarded if any signs of deterioration, such as discoloration, are observed.

Assay.—Add 1 c.c. of the solution of epinephrine hydrochloride to be tested to 99 c.c. of physiological solution of sodium chloride, and thoroughly mix. The dog to be used should be of medium size and be anaesthetised with a suitable anaesthetic. It is prepared for blood pressure estimations by inserting a cannula into the carotid artery and connecting the same with a mercury manometer. The trachea may also be exposed and a cannula inserted so that the animal may receive artificial respiration during the course of the experiment, if necessary. The injections are made into the exposed femoral vein. Before the test is made, in case any muscular movement, such as twitching, is present, the dog should receive by intravenous injection a sufficient dose of curare, but if the animal is deeply anaesthetised this is not necessary. The dog should also receive a sufficient dose of atropine sulphate (from 0.001 to 0.002 gram) to paralyse the vagi, this paralysis being proved by electrical stimulation. The blood pressure tracing is recorded on a kymograph. Injections must be made at regular intervals of approximately five minutes. Determine the amount of standard solution necessary to cause a rise in blood pressure of from 30 to 60 mm. by injecting intravenously varying doses of the solution, and after a satisfactory dose has been ascertained, the uniformity of the reaction should be tested by the injection of two or more doses of equal size. If these injections produce approximately equal increases in blood pressure, alternate injections of the solution to be tested and of the standard are made, varying the amount of the unknown until two or more successive injections raise the blood pressure to the same height, indicating that the amount of active agent is the same in the doses used. From the result thus obtained, the strength of the unknown solution may be determined and adjusted.

SOLUTION OF PITUITARY

Solution of pituitary contains the water-soluble principle or principles from the fresh posterior lobe of the pituitary body of cattle, 1 c.c. having an activity upon the isolated uterus of the virgin guinea pig, corresponding to not less than 80 per cent. and not more than 120 per cent. of that produced by 0.005 gram of the standard powdered pituitary, prepared as directed below.

Standard Powdered Pituitary

Select a number, not less than 25, of fresh posterior lobes of the pituitary body of cattle, removed within 30 minutes of the death of the animal, and carefully free from all extraneous tissue, immediately after their removal. As soon as they are so prepared, drop them into a flask containing a quantity of acetone corresponding to not less than

4 c.c. of acetone for each pituitary body. Allow them to remain in the acetone for three hours, and then remove them and immediately cut them into small pieces with scissors and place the material in fresh acetone equal in quantity to that first employed. Leave the material in the acetone over-night, and then remove it and dry it in a vacuum desiccator over calcium chloride, at a temperature not above 50° C. for five hours. At the end of this time remove the material and grind it in a mortar until it will pass through a No. 40 sieve. Dry this powder for at least twelve hours in a vacuum desiccator over calcium chloride at a temperature not over 50° C. Extract this dried powder in a small Soxhlet continuous extraction apparatus with acetone for three hours, and again dry it in a desiccator over calcium chloride for twelve hours. This dried powder should be preserved in a cool, dark place, in sealed ampoules in *vacuo*, or in vacuum desiccators over calcium chloride until used for the preparation of the standard solution.

Assay.—Prepare a solution as follows: Carefully weigh a suitable amount of the dried standard powdered pituitary, place this weighed powder in a small agate mortar and moisten with a few drops of distilled water containing 0.25 per cent. of acetic acid. Triturate the moistened powder thoroughly until the whole is of an impalpable frothy consistence. Add a few c.c. of the 0.25 per cent. acetic acid solution and stir the mixture thoroughly. Transfer to a hard glass test tube or beaker; rinse the small agate mortar with the acetic acid solution and add the rinsings to the pituitary mixture; then add enough 0.25 per cent. acetic acid to make the final volume of the mixture of the same number of c.c. as the number of milligrams of dried pituitary powder originally taken. Heat this mixture to the boiling point for not more than one minute, and filter. The filtrate contains in each c.c. the active principle of 0.001 gram of the dried standard powder. Place this solution in hard glass ampoules and sterilise by fractional sterilisation for twenty minutes on three successive days at a temperature not exceeding 100° C. Preserve in a cool place (from 5° to 20° C.). This standard solution should not be kept for more than six months. The apparatus used for making the test may be any modification of the general type for studying the activity of the isolated smooth muscles of mammals. It must be provided with an accurate temperature regulating device. The chamber in which the uterus is suspended should have a capacity of not less than 100 c.c. Use healthy guinea pigs weighing between 175 and 350 grams; they should not have been pregnant and should not be in heat. It is recommended that young female pigs be segregated at the time of weaning and kept thereafter out of sight and smell of the males. Kill a guinea pig by a blow on the head, or by decapitation, and immediately remove the entire uterus from the body. Suspend a part or all of one horn of the uterus in a chamber containing oxygenated Locke-Ringer solution, one end of the uterus being attached to a muscle lever which is weighted as necessary. The temperature of the bath should be between 37° and 38° C., but should not vary more than by 0.1° C. throughout the whole assay. When the uterus is completely relaxed, which is generally in between 15 to 30 minutes, it is ready to begin the test. This is done by adding alternately varying doses of the standard extract and of the solution to be tested to the bath in the muscle chamber until quantities of the two solutions are found which give equal, sub-maximal contractions in at least two successive pairs of contractions. The strengths of the two solutions are in inverse ratio to the quantities necessary to produce these equal contractions.

SQUILL

Squill, in the form of the tincture, properly diluted and injected into the ventral lymph sac of a frog, has a minimum systolic dose (minimum dose producing in one hour a stoppage of the ventricle of the heart in systole) not exceeding 0.006 c.c. of tincture, equivalent to 0.000005 gram of ouabain, for each gram of body weight of frog.

Assay.—Prepare a tincture by the official process and assay as directed under tincture of digitalis. Fluid extract of squill is required to have a minimum systolic dose of not less than 0.00055 c.c. and not more than 0.00065 c.c. for each gram of body weight of frog.

STROPHANTHUS

Strophanthus, in the form of the tincture, properly diluted and injected into the ventral lymph sac of a frog, has a minimum systolic dose (the minimum dose producing in one hour a stoppage of the ventricle of the heart in systole) not exceeding 0.00006 c.c. of tincture, equivalent to 0.0000005 grams of ouabain, for each gram of body weight of frog. Assayed as described

under digitalis, using a tincture prepared by percolation from defatted seeds.

It is interesting to note that whereas in the monograph descriptive of the drug itself a definite standard is laid down in every instance, in the monograph devoted to the corresponding tincture, or fluid extract, maximum and minimum limit doses are given. Thus, in the monograph on digitalis the drug is required to have a minimum systolic dose not exceeding 0.006 c.c. of tincture, but in the article on tincture of digitalis the latter is required to have a minimum systolic dose of not less than 0.0055 c.c. and not more than 0.0065 c.c.

Festivities

Dance at West Ham

THE West Ham Association of Pharmacists held the first social and dance of the season on October 15, over ninety members and friends being received by the President (Mr. F. W. Gwinn), and an enjoyable evening was spent. Following the interval for refreshments, musical items were contributed by Miss Stevens and Mr. Henry Offord. At the termination of the competitive events Mrs. Gwinn presented the prizes, the winners being:—Musical arms, Mrs. Stearn and Mr. B. Wathen; and in the lucky spot fox trot, Mrs. Oldson and Mr. Sydney Gwinn.

North Londoners' Reunion

THE annual reunion of the North London Pharmaceutical Association took place on October 22 at Beale's Restaurant, Holloway Road, at which there was a crowded gathering of members and their families to greet the new President (Mr. J. T. Walters). The first part was given over to a whist drive, and after refreshments had been served, dancing concluded the evening about midnight. During a lull in the dancing, prizes won at the whist drive were presented by Mrs. Walters, the President making a few appropriate remarks. The prize-winners were: Miss M. Prain, Miss Parker, Mrs. W. Allan, and Messrs. T. Marshall, A. Green and A. G. Felton. Votes of thanks were accorded to Messrs. Skinner, Swanston and Mumford for organising what proved to be an excellent opening of a new session.

Masonic Pharmacists' Supper

THE sixth annual meeting and supper of the Manchester Pharmaceutical Masonic Association was held on October 21, at the Exchange Hotel, Manchester. Worshipful Brother A. H. Lyons, P.S.G.D., chairman, presiding. After a tribute had been paid to the memory of Brothers Napier and Middleton, whose deaths had occurred since the last meeting, the following officers were elected:—Chairman: Brother H. Woodhead; Vice-Chairman: Brother T. Leigh Bennett; Director of Ceremonies: Brother I. Peace; Assistant Director of Ceremonies: Brother J. A. Lyle. Stewards: Brothers Rushton, Bridgford, Schofield, and Gloyne. Committee, as before, with Brother J. S. Livesley added. Brother A. Newton retains the post of honorary secretary. At the social board, the toast of "The Chairman" was given by Brother T. Leigh Bennett. The chairman, in replying, expressed his great appreciation of the honour, and referred to the pleasure he had in remembering that he was one of the founders of the Association. The toast, "The Visitors," was given by Worshipful Brother A. H. Lyons, and replied to by Worshipful Brothers Bostock and Smith. Musical and humorous turns were given by Brothers Bridgford, Gloyne, Brotherton, Bostock, Dickinson, Turner and Sales.

LIQVORICE ROOT.—The export of liquorice root from Smyrna now is practically entirely in the hands of American dealers, as they alone possess the special machinery for packing the drug in sacks.

CONDENSED MILK REGULATIONS.—The Prefect of Constantinople has issued an order to the effect that all tins of condensed milk imported from abroad must bear a label stating, in Turkish, the quality and composition of the contents.

Italian Pharmaceutical Provident Fund

THE Federation of Associations of Pharmacists of Italy has definitely adopted the proposal advanced last year by Grand' Ufficiale Carlo Giongo (*C. & D.*, I, 1924, p. 758), to create a compulsory invalidity and old-age pension fund for pharmacists, and the statutes of the proposed fund have been passed, and embodied in the draft of a Bill. This Bill, which has received the approval of the Government, will shortly be submitted to Parliament, a step which marks the approaching realisation of a hope long entertained by Italian pharmacists, who will be under still another obligation to the man "who united the pharmaceutical profession in a solid phalanx by his fervent words and with indomitable energy translated its ambitions into laws, opening to Italian pharmacy a new era of progress," according to the words on the shield presented at the VII National Chemico-Pharmaceutical Congress, at Palermo, on October 5, by his grateful *confrères*. It may be mentioned that Signor Giongo is the owner of the historic "Farmacia di Brera," in Milan (described in *THE CHEMIST AND DRUGGIST*, I, 1924, p. 930), President of the *Mutua Farmaceutica Italiana*, and editor-in-chief of the "*Bollettino Chimico-Farmaceutico*."

The following are some of the outstanding features of the scheme: The Invalidity and Old Age Pension Fund for Pharmacists will have its headquarters in Rome, and will be directed by a council consisting of nine pharmacists, appointed for a term of office of three years, as follows: The chairman to be selected by the Government from among the names submitted by the Presidents of the pharmaceutical associations; three members nominated by the Government, two of whom must be pharmacists in business; five members elected by the pharmacists of Italy, of whom one must be an assistant and one a member of the staff of a pharmaceutical firm, manufacturing or wholesale house. The first council will be nominated by the Government, and will function until the regulations have been published. With very few exceptions, all qualified and registered pharmacists, including proprietors, managers and assistants, below the age of sixty years, are compelled to become members of the Fund. Pharmacists between sixty and sixty-five, and those already insured with other institutions, may, at their request, be exempted from becoming members.

CONTRIBUTIONS

The necessary revenue will accrue from:—(1) The payment of an annual contribution of 300 lire by each insured person. (2) The revenue derived from the introduction of a special prescription stamp of the value of lira 0.25, each bearing a serial number, to be affixed to every medical prescription on which a dispensing fee is chargeable, and also on every pharmaceutical speciality containing narcotic drugs. In the case of prescriptions for sick clubs, charitable and poor-law institutions, etc., the use of a special stamp entailing a charge of lira 0.10 is stipulated. (3) An annual contribution of 300 lire chargeable to every charitable institution, commune, co-operative society, or other body carrying on a pharmacy. (4) A monthly contribution, amounting to 75 lire for each insured person, half of which will be paid by the latter and the other half by the employer. (5) The amounts collected in stamp duties on granting a concession for a new pharmacy established under the pharmacy laws of 1913-1914, and in fines for transgressions against these laws, will be paid into this Fund by the Government.

BENEFITS.

Insured pharmacists have the right of claiming a pension:—(a) On the completion of forty years' professional service, including the years spent as a student at a University. (b) After at least twenty years' work, on reaching the age of 65. (c) After at least ten years' professional work in the case of permanent invalidity. The widow of a pharmacist whose death occurs after completion of ten years' professional service is entitled to a pension, provided that she has been married for at least one year, and that the marriage took place

before the insured pharmacist reached the age of 50. The amounts of the pensions payable annually are as follows:—(1) After 40 years' service, either 6,000 lire, or 9,000 lire. (2) After 20 years' service, 3,600 lire, to be increased by 120 lire for every year of service in excess of twenty, or 5,400 lire, increasing by 180 lire for each year of service over the first twenty. (3) In the case of permanent invalidity occurring after at least ten years' service, 3,600 lire, to be increased by 800 lire for every year of service in excess of the first ten years. The lower rates of benefits given above are to be regarded rather in the light of disablement pay, while the higher rates are in reality pensions. These pensions, i.e., the higher rates, given in the foregoing are payable only in the event of the claimant's complete retirement from business, or from any form of work in a pharmacy or pharmaceutical establishment, since Article 17 stipulates that this pension (i.e., the higher rate) is not to be paid to a pharmacist competing for the concession of another business, acting as a manager, locum-tenens, or assistant, etc. The pension payable to the widow of an insured pharmacist is fixed at one-half of the pension which her husband would have been entitled to claim at the time of his death. This pension is supplemented by additional payments in respect of any children, according to the number of the latter. Grand' Ufficiale C. Giongo made a donation of 100,000 lire towards the creation of the Fund when launching his scheme; since then Italian pharmacists have subscribed a total of 435,688 lire; while 176,138 lire have been actually paid in to the treasurer, who has now handed over the accumulated funds to the Government, pending the definite constitution of the council of the new Pharmaceutical Provident Fund.

Pharmaceutical Society of Great Britain

Branch Meetings

Burnley.—The Burnley Branch held a meeting on October 22, the chairman (Mr. U. Aylmer Coates) presiding. Mr. W. J. Melhuish, who addressed the members on *The Life and the Power within Us*, gave a description of the actions of the various vitamins in building and sustaining the body. He also described the composition of various restorative foods, explaining how some were more valuable than others.

Derby.—A meeting of the Derby Branch was held on October 22 at the Oriental Café, Irongate, Mr. Taylor in the chair. Messrs. Antcliffe and Beardsley addressed the meeting, Mr. Antcliffe giving an account of the work of the Council, while Mr. Beardsley dealt with the Dangerous Drugs Act and the Northern Irish Pharmacy Act. Mr. F. Browne was in attendance from headquarters, and after an excellent meeting, tea was provided.

Nottingham.—A meeting of the Nottingham Branch was held on October 23, at which Mr. Carr presided. Messrs. Antcliffe and Beardsley repeated their addresses given the previous day at Derby.

Stoke-on-Trent.—The North Staffordshire Branch held the first meeting of the winter session at the Talbot Hotel, on October 22, when the members were entertained to supper by the President (Mr. S. G. Challinor), a most enjoyable evening being spent.

THE report of the London City Council for the year 1924 includes the following statistics: Inspections of premises under the Weights and Measures Acts, 71,214; appliances unjust or unstamped, 141; convictions for contravening the Shops Acts, 1,272.

THE FIRST FOR 1926.—We have received from Booker Brothers, McConnell & Co., Ltd., Mincing Lane, London, E.C.3, a copy of an almanac and diary for the year 1926 (8½ in. by 5½ in., 72 pp.), produced for distribution from their drug department in British Guiana. Excellently printed, and comprising a capital variety in literary contents, it should fulfil its mission wherever it goes.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, October 29.

REPORTS in regard to business in the Mincing Lane produce markets differ somewhat this week, but a fair amount of general interest is shown, the movements in prices being fairly numerous. The speculation in Japanese dementiolised peppermint oil is again an outstanding feature, and the fact that the United States is a buyer, both in London and Japan, adds piquancy to the situation. Higher prices are asked for senega in some directions, but second-hand sellers are still below first hands. Matto Grosso ipecacuanha is quiet and unchanged; ergot is firm, with a continued spot scarcity. Squill is in fair demand, stocks of first white being exhausted. Essential oils are in moderate demand. Bergamot oil has been selling on the spot. French lavender is quiet and the turn easier. In the pharmaceutical chemical group a number of items have met an improved business, with prices mostly unchanged. Potassium bromide has an easier tendency. Hexamine maintains last week's improved tone. Phenazone is slightly firmer; resorcin is irregular, while salol and vanillin are easier. Among industrial chemicals, business showed a slight improvement in several directions. Acetone is very firm and dearer. Arsenic is again cheaper, and potassium prussiate is firmer. Carbolic acid crystals and pyridine remain flat. Among the so-called vegetable oils, the bulk of the price alterations is downwards, these including palm and castor, linseed and cotton oils. Coconut and wood oils are easier. Soya has slightly improved. Other changes include an advance in mercury and shellac futures.

Higher	Firmer	Easier	Lower
Acetone	Bergamot oil	Caraway seed	Arsenic
Aniline salt	Cinnamon	Lavender oil	Castor oil
Antimony	Citronella oil	Platinum	Cotton oils
Juniperberry oil	Palm oil	Palm oil	Fuel oils
Mercury	(c.i.f.)	Pepper	Linseed oil
Pepper (black)	Petitgrain oil	Petroleum	Salol
Pepper (spot)	Phenazone	Jellies	Wood oil
Peppermint oil	Potash	Pot. bromide	
(Jp. dementh)	prussiate	Vanillin	
Peppermint oil	Soya oil		
(Amer.)	Spearmint oil		
Senega	Spike oil		
Shellac (futures)	Tannic acid		
	(B.P. leviss)		

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday :—

Place	Method of Quoting	Par of Exchange	October 21	October 28
Amsterdam	Fl. to £	12.107	12.04½—12.04½	12.04½—12.04½
Berlin	M. to £	20.43	20.33—20.34½	20.35½—20.36½
Brussels	Fr. to £	25.22½	106.20—106.30	106.95—107.05
Bulgaria	Lev. to £	25.22½	660—675	660—680
Calcutta	Perrup.	24d.	18½d.—18½d.	18½d.—18½d.
Constantinople	Pst. to £	110	855—870	850—865
Greece	Dr. to £	25.22½	364—367	365—368
Hong Kong	T.t. \$	—	29½d.—29½d.	29d.—29½d.
Italy	Lire to £	25.22½	121½—121½	122½—122½
Kobe	Yen	24.58d.	20½d.—20½d.	20½d.—20½d.
Lisbon	Escu.	53d.	2½d.—2½d.	2½d.—2½d.
Madrid	Pts. to £	25.22½	33.80—33.83	33.81—33.83
Montreal	\$ to £	4.86½	4.83½—4.83½	4.83½—4.84
New York	\$ to £	4.86½	4.84½—4.84½	4.84½—4.84½
Oslo	Kr. to £	18.159	23.90—23.95	23.80—23.85
Paris	Fr. to £	25.22½	109.70—109.80	116.20—116.30
Singapore	Per dol.	—	28½d.—28½d.	28½d.—28½d.
Switzerland	Sfr. to £	25.22½	25.13—25.14	25.14—25.16
Vienna	Sh. to £	24.02	34.35—34.39	34.37—34.42
Warsaw	Zloty to £	25.22½	28½—29	28½—29½

Cablegram

NEW YORK, October 28.—Business is dull. Peppermint oil in tins has advanced to \$19.00 per lb., and mercury to \$84.00 per flask. Menthol is lower at \$9.75 per lb.

Crude Drugs, etc.

ALMONDS.—Italian are offered at slightly easier rates, owing to the alteration in exchange, but values as compared with other descriptions are not attractive. Further shipments of Morocco have arrived, and sales of small lots have been made at full prices; small Jordan are unaltered, with a scarcity of larger sizes. Valencia are steady and less active.

ALOES.—The exports from the Union of South Africa during April amounted to 47,754 lb. (£422), against 63,784 lb. (£497) in April 1924. During the four months ended April 30 the exports were 207,713 lb. (£1,740), against 208,145 lb. (£1,636) for the corresponding period in 1924.

ANTIMONY has developed further strength on an increased demand and reports from China pointing to renewed troubles in the Yangtse Valley in the near future. English regulus was late last week raised £5 per ton, ranging from £75 to £80. Chinese refined is also dearer, sellers on the spot wanting about £69 10s. Parcels afloat, the supply of which is restricted, are about £67 to £67 10s. c.i.f. Crude is nominal at £65 per ton; no reliable quotation being obtainable at the moment.

BISMUTH.—The market is firmly maintained with the official quotation of the Convention standing at 10s. per lb. It is reported that rather important quantities have already been marketed from Canada for some time past, and that bismuth is being secured from the treatment of silver-cobalt ores. There is little doubt that the supply from that quarter will be gradually further increased, and that marketing will be placed on a more consistent basis.

BUCHU.—The exports from the Union of South Africa during April amounted to 14,147 lb. (£1,213), against 43,800 lb. (£4,190) in April 1924. During the four months ended April 30 the exports were 74,640 lb. (£7,719), against 90,259 lb. (£10,205) for the corresponding period of 1924.

CADMIUM.—There is a steady demand for Australian, metal selling at 1s. 9d. per lb., but quotations for other descriptions range up to about 2s. 1d.

CASCARA SAGRADA is quiet, new peel offering at 55s. per cwt. c.i.f.; 1924 peel on the spot is 62s. 6d.

CARAWAY SEED.—Business has been done in Dutch for prompt shipment at 25s. per cwt. c.i.f.

CELERY SEED.—New crop French to arrive is offered at 120s. per cwt. c.i.f.

CINNAMON is firmer on the spot, and a rising market in Ceylon. Firsts on the spot is 1s. 10d., seconds 1s. 9d., thirds 1s. 8d., chips 4½d. per lb.

CLOVES are quiet with Zanzibar offering on the spot at 11d. per lb. To arrive, October-December shipment has been sold at 10½d. c.i.f. and sellers. January-March shipment has been sold at 10½d. c.i.f. and sellers. The statistics for the week ended October 24 show 430 bales were landed and 262 delivered, leaving a stock of 8,333, against 19,506 in 1924, and 19,521 in 1923. So far this year the landings have been 11,787, against 38,756 last year, and the deliveries 18,558, against 38,627 in 1924.

COD-LIVER OIL.—The business situation in Norway is very difficult at present, and prices of late have been declining. Finest steam-refined medicinal non-freezing oil is quoted at 154s. per barrel c.i.f. London. Our Bergen correspondent writes on October 26 that the demand is still poor and confined to small lots. The nominal quotation for non-freezing, steam-refined quality is 160s. to 162s. per barrel, c.i.f. London, but it is possible that there are sellers at a lower rate.

ERGOT.—In the absence of spot supplies, prices of Spanish and Portuguese are nominal on the spot at about 3s. per lb. New Spanish is quoted at 2s. 10d. to 2s. 11d. c.i.f., and new sound Portuguese at 2s. 7d. to 2s. 8d. c.i.f.

GINGER is steady and unchanged. West African is quoted at 61s. to 63s. per cwt., according to quality. Washed rough Cochin is scarce, but some parcels are being shipped from the United States, West African being taken from London in place. New crop washed rough Cochin is still quoted at 75s. c.i.f., but without business the spot value being 105s. Jamaica is steady; new crop does not commence to arrive until about May-June.

HYDRASTIS is steady at 19s. 6d. to 20s. per lb. on the spot.

IPECACUANHA.—Matto Grosso is quiet at 12s. per lb. Arrivals aggregating 35 packages have taken place to London. Minas is quoted at 11s. 6d. per lb. c.i.f. to arrive, but this would not be available before the end of the year.

LIQUORICE ROOT.—Decorticated cut is scarce on the spot at 60s. per cwt., and for natural 13s. to 14s. is quoted.

LYCOPodium.—New crop to arrive is offered at 7s. 3d. per kilo.

MACE remains firm but slow at prevailing high prices: Fair Singapore is 4s. 3d. to 4s. 6d., common 4s., pickings 3s. 9d., fair to good W.I. 4s. to 4s. 6d. per lb.

MAGNESIUM is quietly steady, demand being fair, and English makers are asking about 3s. 9d. to 4s. 3d. per lb. for small ingots, while quotations for powder range from 4s. 9d. to 5s. 9d.

MANDRAKE ROOT is firm at 65s. per cwt. for *P. Peltatum* and 75s. for *P. Emodi*.

MENTHOL shows rather more inquiry, with Kobayashi-Suzuki offering on the spot at 44s. 6d. to 45s. per lb., the latter for single cases. Forward prices are unchanged.

MERCURY has further advanced under a generally more important demand from home consumers, and also for re-export to the Far East, and the chief holders on the spot are reserved. While it might have been still possible early this week to place orders at £13 17s. 6d., terms later ranged from £14 rather upward per bottle for good-sized lots, and at least £14 5s. to £14 10s. was quoted for small lots. The outlook, although rather obscure, would seem to favour the continuation of firm markets, while c.i.f. offers from the Continent are not being pressed at higher rates, ranging up to about £13 10s. net c.i.f.

NUTMEGS have been in small steady demand at unchanged prices. Singapore 110's is 2s. 4d., 80's 2s. 7d., 65's 3s., West Indian 110 to 100's 1s. 10d. per lb.

NUX VOMICA.—Cochin to come forward is quoted at 13s. 3d. to 13s. 6d. c.i.f.

PEPPER.—The spot price of fair black Singapore closes at 10½d. per lb., having been up to 10¾d. in the interval. To arrive, prices have eased, January-March offering at 10¾d. c.i.f. Lampong is 10¾d. spot, and October-December has been sold at 10½d., and January-March at 10¾d. to 11d. c.i.f. White Muntok pepper is firm at 1s. 2½d. per lb. on the spot; to arrive, October-December shipment has been sold at cheaper rates, viz., 1s. 1¾d. to 1s. 1½d. to 1s. 1¼d.; January-March at 1s. 2½d. to 1s. 1¾d. to 1s. 2¾d. c.i.f., f.a.q. Singapore on the spot is 1s. 2¼d.

PLATINUM.—The available supplies would seem to be more plentiful, and although leading refiners are still asking £25 per oz., it is understood that purchases can be made elsewhere down to £24.

RUBBER has been "marking time" since our last report, and although prices have fluctuated slightly, there has been no material alteration in the position. At the present moment 75 per cent. of the standard production is being exported from the East; on November 1 a further 10 per cent. is to be added, making 85 per cent. in all, meanwhile manufacturers are hoping a further allowance will be made by the Government over and above the 10 per cent. On this point alone there is a very divided opinion, and the market is at present very sensitive. Orders from America have not been large, while the demand from the Continent has temporarily ceased; nevertheless, there is very little spot rubber available. Stocks are again lower this week by 57 tons, and the London stock now stands at 5,133 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard ribbed smoked sheet, spot 4s. 0½d.; November-December, 3s. 11d.; January-March, 3s. 6d.; April-June, 3s. 3d. per lb.

SEEDS.—The market remains in the quiet state so characteristic of seeds for some time past, and prices are unchanged. ANISE.—Spanish is 57s. 6d., Russian 50s., and Levant 49s. CANARY SEED.—Mazagan has been sold at 30s. spot, and sellers are now asking 30s. 6d.; good bold Spanish is offered at 35s. CORIANDER SEED is in little or no demand, with sellers at 16s. 6d. to 18s. 6d. spot for Morocco. CUMIN SEED is quiet: Maltese has sellers at 50s. spot, and new crop is offering at the low price of 37s. per cwt. to arrive; Morocco is 47s. 6d. per cwt., spot. DILL SEED is steady at 20s. 6d. spot. FENUGREEK SEED.—Morocco is 15s. 6d. to 16s. spot. HEMPSEED.—Manchurian, 17s. LINSEED.—Morocco quoted at 21s. 6d. spot. MUSTARD SEED.—English very scarce at 36s. to 38s. spot, but only limited supplies available.

SENEGA has been gradually appreciating in value for some time past, the c.i.f. price having advanced to 2s. 9d. per lb. (second-hand sellers); but first-hand ask 2s. 11d. and 3s. c.i.f. The spot value is 2s. 9d. for drug about landing.

SHELLAC.—Spot values are unchanged, but futures are higher. Usual standard TN orange is 230s. to 235s., fine second orange 245s., superfine 250s. to 280s., AC cakey 215s. Sales for delivery include TN for December at 207s. 6d. to 202s. 6d. to 217s. 6d., and March 197s. 6d. to 215s. per cwt. To arrive, TN for November-December shipment has been sold at 200s. to 210s. c.i.f.

SQUILL is in fair demand, but not much available; first white has been sold at 22s. per cwt., and seconds are worth 15s. to 15s. 6d.

STARCH PRODUCTS, ETC.—Dutch maize starch powder (cornflour) is quoted on the spot at 16s. per cwt., and for shipment 16s. 6d. f.o.b. American, for October-December delivery, is 16s. 4½d., and January-March 15s. 10½d. Pearl starch is 15s. 10½d. for October-December delivery, and January-March 15s. 4½d.; Dutch, for October-November, is 15s. 6d., and January-March 15s. 3d. f.o.b. Dutch farina is 16s. 6d. per cwt. on the spot and 15s. 3d. f.o.f. for October-December shipment; Polish 14s. f.o.b. Dutch maize starch crystals, 20s. 6d. on the spot, and American 21s. for October-March delivery. Dutch dextrin is 21s. for superior on the spot, and 20s. for No. 2. American canary is 20s. 6d. for October delivery; 20s. for November-December; and 19s. 6d. for January-March. White, for October delivery, is 20s. 3d.; November-December, 19s. 9d.; and January-March, 19s. 3d., ex store.

TURMERIC.—Spot quotations for Madras finger appear to be confused at present. Recently from 33s. to 35s. per cwt. has been paid for fair finger, but mention of lower figures is freely made, although actual sellers at the prices are hard to find. Spot value of Cochin split bulbs is 20s. per cwt.

Essential Oils

PRICE changes this week are mostly in sellers' favour, with demand fair. Japanese peppermint continues active at advancing rates. American is also dearer. The following oils show a firmer tendency; bergamot, Java citronella, Cochin lemongrass, Paraguay petitgrain, American spearmint, and Spanish spike.

ANISE (STAR).—"Red Ship" on the spot is unchanged with sellers at 3s. 5d. per lb. For shipment 3s. 2d. c.i.f. is quoted to arrive, with sales thereat.

BERGAMOT.—There has been a fair amount of spot business this week, some holders having cleared their stocks, up to 23s. being reported paid. Value of 37 to 39 l.a. is firm at from 23s. to 24s. per lb. as to holder. Forward prices are a shade easier with offers at 20s. 6d. c.i.f. for new crop and 22s. c.i.f. for prompt shipment.

CAJUPUT on the spot is steady with sellers at 2s. 11d. per lb. in bottles.

CASSIA.—Spot sales of 80 to 85 c.a. have been made at 10s. per lb. Up to 10s. 3d. has been quoted. For shipment 9s. c.i.f. is wanted.

CEDARWOOD.—American on the spot is unchanged, with cases offering at 2s. 6d. per lb. and 2s. 4½d. for drums.

CINNAMON.—Ceylon leaf on the spot is quoted at 5s. 4d. to 5s. 8d. per lb., and for shipment 4s. 10d. c.i.f. to arrive is asked.

CITRONELLA.—Ceylon on the spot is at 1s. 10½d. per lb., and for shipment 1s. 9d. c.i.f. to arrive is quoted. Java

oil is firmer at 3s. 2d. per lb. on the spot after a decline to 3s., and for shipment 2s. 10d. c.i.f. is wanted.

CLOVE.—English distillers on the spot quote at from 6s. 3d. to 6s. 9d. per lb.

EUCALYPTUS.—Spot demand is quiet with value steady at 1s. 9d. per lb. for 70 to 75 per cent. cineol. For higher percentages from 1s. 10d. to 1s. 11d. is asked.

GERANIUM.—Bourbon is quoted at the cheaper rate of about 14s. per lb. c.i.f. On the spot there are sellers at from 14s. 6d. to 15s.

JUNIPER BERRY.—The forward price of B.P. oil has advanced, although berries appear to be cheaper. Prices quoted range from 7s. 6d. per lb. c.i.f. upwards. On the spot 7s. 9d. is now asked.

LEMON continues to be offered at a great range of prices on the spot. For a well-known brand 6s. 6d. per lb. is reported to have been paid, but the general value is well below this, from 5s. 9d. to 6s. representing the average value. For new crop January-March shipment 5s. 9d. c.i.f. is quoted, while prompt shipment is from 6s. upwards.

LEMONGRASS.—Cochin is unchanged at 4s. per lb. on the spot, the forward price being slightly firmer at 3s. 9d. c.i.f. to arrive.

PALMAROSA is unchanged at 12s. 6d. per lb. for original pots.

PATCHOULI is firm at from 13s. 6d. to 13s. 9d. per lb. for usual Singapore quality.

PEPPERMINT.—American natural tin oil is dearer at from 75s. to 76s. 6d. per lb. c.i.f. Small sales have been made by cable at the lower figure. Spot, where obtainable, is quoted at from 75s. to 77s. 6d. Reports are to the effect that Japanese oil is to be imported into the U.S. as "corn mint," and parcels are now on the way to the U.S. This can be used for technical purposes, and may fill a good proportion of the demand for technical oils if offered at a reasonable price. We learn that some sales have been made direct to the U.S. from Japan under the name "corn mint." London exporters have been requested by cable to make offers under this name, but at the time of writing there is a certain amount of hesitation, as exporters will not take the risk of the oil being rejected by the Customs, and require a guarantee from U.S. buyers. On Wednesday 28s. 9d. per lb. was reported paid and supplies are limited. Forward business is reported as follows: For September-October (ship declared), 25s. 6d.; October, 24s. 6d.; October-December, 19s. 6d. (and buyers); January-March, 16s. 6d. All c.i.f. to arrive. For delivery in about three weeks' time 27s. 6d. is asked. The "Alps Maru" has brought 55 cases, all of which has been disposed of.

PETITGRAIN.—Paraguayan on the spot is firmer at 8s. 6d. per lb. in original cases and 8s. c.i.f. to arrive.

ROSEWOOD (bois de rose) is as last quoted on the spot, 12s. 6d. per lb. or a shade less.

SPEARMINT.—American has been sold on the spot at 55s. per lb. For shipment about 52s. c.i.f. is quoted.

SPIKE.—Spanish new crop oil is dearer on the spot at 5s. to 5s. 3d. per lb.

Aromatic and Synthetic Chemicals, etc.

The following are prices current for fair wholesale quantities (duty-paid):—

	Per lb.		Per lb.
Acetophenone ..	5/3 to 5/6	Ionone β ..	12/- to 12/6
Allyl salicylate ..	3/- to 3/3	Iso-eugenol ..	13/6 to 14/6
Anethol ..	5/6 to 6/-	Linalol ..	15/6 to 15/9
Aubepine ..	9/3 to 9/9	Linalyl acetate ..	18/9 to 19/-
Benzaldehyde ..	2/6 to 2/9	Methyl anthranilate ..	8/3 to 9/-
Benzyl acetate ..	2/- to 2/3	" benzoate ..	5/-
" alchoate ..	1/10 to 2/-	" salicylate ..	1/7 to 1/9
" benzoate ..	2/3 to 2/6	Musk ambrette ..	26/- to 27/6
Broinstyrol ..	9/9 to 10/3	" ketone ..	30/6 to 32/-
Cinnamic aldehyde ..		" xylol ..	6/6 to 7/3
(synth.) ..	3/6 to 3/9	Phenyl acetic aldehyde ..	22/-
Citral ..	9/- to 9/6	Phenyl ethyl alcohol ..	10/9 to 11/3
Citronellol ..	17/6 to 18/6	Rhodinol (as to quality) ..	20/- to 45/-
Coumarin ..	11/6 to 11/9	Rhodinylacetate ..	40/-
Diphenyl oxide ..	3/6 to 3/9	Safrol ..	1/6
Eugenol ..	9/6 to 10/-	Terpineol ..	1/4 to 1/7
Geranyl acetate ..	14/3 to 14/6	Thymol (synthetic) ..	9/9
Heliotropine ..	5/- to 5/3	(ex ajowan) ..	13/-
Hydroxycitronellal ..	30/- to 35/-	Vanillin ..	22/- to 22/6
Ionone 100% ..	18/- to 20/-		
" α ..	25/-		

The following arrivals of essential oils have taken place from the countries named during the period October 22 to 28 inclusive:—Anise (Fr.), 5 cs.; caraway (Holl.), 1 cs.; cinna-

mon leaf (Brit. Ind.), 5 dm.; citronella (Jv.) 13 dm.; (Burma) 3 dm.; eucalyptus (Aust.), 40 cs., 6 dm.; geranium (Fr.), 5 dm., 1 cs.; kuramotoji (Jp.), 1 dm.; lavender (Fr.), 9 cs.; lemongrass (Sp.) 2 dm.; (Br. Ind.) 4 dm.; lime (B.W.I.), 16 cs.; mandarin (It.), 1 cs.; orange (B.W.I.), 10 cs.; patchouli (Seych.), 5 cs.; peppermint (U.S.) 33 cs.; (It.) 11 cs.; (Holl.) 4 cs.; (Germ.) 1 dm., 4 cs.; (China) 5 cs.; pine (U.S.), 100 brls.; rosemary (Fr.) 4 cs.; (Sp.) 7 dm.; rosewood (Fr.), 8 cs.; sage (Sp.), 1 dm.; sandalwood (Aust.), 21 cs.; spike (Sp.), 4 dm.; vetiver (Fr.), 2 cs.; undescribed (Fr.), 7 cs.

Pharmaceutical Chemicals, etc.

Most reports to hand this week comment upon the improvement in business in a number of items. This better demand, although of no great amount, is not restricted to one or two products. Prices show but very little change this week and reflect the steady spot tone. Potassium bromide is easier and phenazone is firmer.

ACETANILIDE (B.P. crystals and powder) is maintained steadily on spot at about 1s. 7½d. per lb., with fair business being done.

AMIDOPYRIN is quiet, with prices varying in the region of 12s. 9d. to 13s. per lb.

ASPIRIN.—The better position is well maintained here, with 5-cwt. lots at about 2s. 6d. per lb.; smaller quantities about 2s. 6½d. to 2s. 7d. per lb.

BARBITONE is flat and unsteady, with spot values about 10s. per lb. Something less might be taken for quantities.

BENZALDEHYDE (0.03) is unchanged on spot at about 2s. 9d. per lb., with business quiet.

BENZOIC ACID (B.P.).—British B.P. is quoted from 2s. to 2s. 6d. at works. Foreign, practically free from chlorine, 3s. 6d. per lb., spot, in small lots.

BENZONAPHTHOL is quiet, but spot prices are steady at about 3s. 5d. to 3s. 6d. per lb.

BROMIDES.—The lower prices continue to be quoted on spot. Ammonium, 2s. 4d. per lb.; potassium, B.P. crystals and granular, 1s. 9½d. per lb., in one-cwt. lots; sodium, B.P. crystals and granular, 2s. per lb., in 100-kilo cases.

CALCIUM LACTATE is moving fairly well, with dealers' prices steady at 1s. 5d. to 1s. 6d. per lb.

CHLORAL HYDRATE is steady, with fair spot business at about 3s. 5d. to 3s. 6d. per lb. for duty-paid crystals.

CITRIC ACID (B.P. crystals).—Dealers' prices, spot and forward, remain at about 1s. 3¼d. to 1s. 3½d. per lb., according to quantity; business small.

CREOSOTE (B.P.).—Business is light; dealers' prices are steady at 2s. to 2s. 1d. per lb.

CREOSOTE CARBONATE is steady but dull, with dealers quoting 6s. 6d. to 6s. 9d. per lb.

GUAIACOL CARBONATE shows no change, with dealers offering at about 6s. 6d. per lb.

HEXAMINE.—The better tone reported last week is maintained, and only large quantities are offered at 2s. 4d. per lb.; ordinary quantities are steady at 2s. 5d. to 2s. 6d. per lb.

HYDROQUINONE is steady, although quiet, with dealers offering spot at 4s. 2d. to 4s. 4d. per lb.

LACTIC ACID (B.P.) is steady at 2s. 4d. in bulk and 2s. 6d. in bottles. Technical, 50 per cent. by weight, £42 per ton, net.

LANOLINE.—B.P. anhydrous in cwt. kegs is quoted at from 6d. to 6½d. per lb. net.

METHYL SALICYLATE is holding well at last week's improved rates of 1s. 7½d. per lb. for quantities in carboys and up to 2s. per lb. for single bottles.

METHYL SULPHONAL remains dull, with dealers' prices down to 16s. 9d. to 17s. 3d. per lb.

MILK SUGAR.—Prices for finest Dutch B.P. are unchanged at 74s. to 75s. per cwt., spot.

PARAFORMALDEHYDE is steady, with some business passing; spot, about 1s. 10d. and upwards per lb.

PARALDEHYDE in carboys is steady at about 1s. 2d. per lb., while cases are 1s. 4d. per lb.; small lots, in bottles, are about 1s. 6d. per lb.

PHENACETIN.—Large quantities are still offered down to 4s. per lb.; smaller parcels at 4s. 2d. to 4s. 4d. per lb.; business moderate only.

PHENAZONE is perhaps a shade firmer this week at about 6s. 3d. to 6s. 6d. per lb., the latter price being for small lots. Continental prices support these figures.

PHENOLPHTHALEIN continues to be quoted at about 4s. 1d. to 4s. 3d. per lb., but a shade less would possibly be accepted for good business.

POTASSIUM PERMANGANATE (B.P.).—Dealers' prices for large quantities to arrive from the Continent continue at about 7½d. to 7¾d. per lb. Small spot lots, 8d. per lb.

PYROGALLIC ACID.—Crystals are quoted at from 5s. 6d. to 6s. 6d. per lb. as to quantity; resublimed is 7s.

RESORCIN is irregular, with some offers down to 3s. 9d. to 3s. 10d., while other quotations for small lots remain at 4s. 2d. per lb.

SALICYLIC ACID (B.P.).—Good business might be done at about 1s. 3½d., but most quotations for 5-cwt. lots remain at about 1s. 4d. per lb., ranging up to 1s. 6d. per lb. Market fairly active of late.

SALOL is again easier, with dealers offering down to 3s. to 3s. 3d. per lb.

SODIUM BENZOATE (B.P.) is steady at about 1s. 11d. per lb. for one-cwt. lots, spot; business rather better.

SODIUM SALICYLATE (B.P.).—Quite good business is reported here, and prices are fully maintained. Dealers quote crystals at 2s. 0¾d. to 2s. 1d. per lb., and powder at about 2s. per lb. British makers' prices, ex works: powder, 1s. 11d. to 2s. 1d.; crystals, 2s. to 2s. 2d. per lb.

SULPHONAL is very irregular, with isolated offers down to 11s. 9d., while other prices remain up to 12s. 6d. per lb.; business very light.

TANNIC ACID.—B.P. *levis* is rather firmer this week, with prices up to 2s. 9d. and higher.

TARTARIC ACID (B.P. crystals).—Business remains slow and small, with dealers offering at cheap rates for shipment from the Continent, 11½d. to 11¾d. per lb., less 5 per cent.

THYMOL is steady on a quiet market at about 13s. per lb. for B.P. fine white.

VANILLIN (100 per cent. from cloves) is rather cheaper this week, with quantities at a shade less than 22s. per lb.

The following are makers' prices (per lb., unless otherwise quoted):—Acid camphoric, 21s. to 19s.; iron ammonium citrate: B.P., 1s. 11d. to 1s. 8d.; U.S.P., 1s. 10d. to 1s. 7d.; green, 2s. 7d. to 2s. 2d.; mercurials: red oxide, 5s. 4d. to 5s. 2d.; corrosive sublimate, 3s. 9d. to 3s. 7d.; white precipitate, 4s. 8d. to 4s. 6d.; calomel, 4s. to 3s. 10d.; potassium citrate, 1s. 10d. to 1s. 7d.; sodium citrate, B.P.C. 1911, 1s. 7d. to 1s. 4d.; U.S.P. ditto, 1s. 10d. to 1s. 7d.; sodium nitroprusside, 16s.; sodium sulphide, pure recryst., 1s. 2d. to 10d.; ether, 720, 1s. 6½d. to 1s. 1½d.; ether, 720 purif., ex s.v.m., 2s. 3d. to 1s. 11d.; potassium acetate, 1s. 2d. to 1s. 1d.; terebene, 2s. 3d. to 2s.; acid phosphoric, sp. gr. 1.750, 1s. 1d. to 11d.; cadmium sulphate, pure, 4s. 3d. to 4s. per lb. Bismuth salts: carbonate, 14s. 9d. to 12s. 9d.; subnitrate, 12s. 9d. to 10s. 9d.; citrate, 13s. 4d. to 11s. 4d.; salicylate, 12s. 2d. to 10s. 2d. per lb.

Among the arrivals of chemicals which have paid Key Industry Duty are the following:—Formic acid, £127; isopropyl alcohol, £150; nickel hydroxide, £482; potassium bromide, £154; quinine ethyl carb., £263; sodium salicylate, £158; chemicals, undescribed, £79s.

Industrial Chemicals, etc.

London, October 28.

A GENERAL but slight improvement in business is reported from most industrial centres, and in some directions prices are hardening. Acetone is much dearer and very firm, and formaldehyde is a bright market. Arsenic is again cheaper with the market showing little life. Oxalic acid may easily move up a point in the near future.

ACETIC ACID is moving well in small lots with dealers' prices fully maintained: 80 per cent. technical, £38; 80 per cent. pure, £39 per ton, in barrels. 99 to 100 per cent. glacial, pharmaceutical, £66 5s. per ton, in glass demijohns. Glacial, in barrels, £55 per ton, ex wharf.

ACETONE is much firmer with a sharp advance recorded. B.G.S. in drums, £78 to £80 per ton, ex wharf; market active.

ALUM is steady with the spot price for lump in casks steady at about £9 per ton; some inquiry for shipment.

AMMONIA (ANHYDROUS) has been in quite brisk demand with dealers' prices firm and supplies on spot short: 99 to

95 per cent., 1s. 3¾d. to 1s. 4d. per lb., in loaned cylinders, carriage paid.

AMMONIUM CHLORIDE.—Grey galvanising continues in fair demand with spot prices from dealers steady at £25 5s. to £25 10s. per ton, in casks.

ARSENIC.—There has been some further weakness, offers having been made down to as low as £15 per ton at the Cornish mines f.o.r. The market continues to suffer from unwieldy accumulations and an indifferent demand.

BARIUM CHLORIDE (98 to 100 per cent. prime white crystals) continues steady at £9 per ton, in casks, spot. Some inquiry for forward delivery.

BARYTES is steady with business fair at £3 5s. to £5 15s. per ton c.i.f., according to quality and quantity.

BLEACHING POWDER.—British makers' price for home trade is unchanged at £9 10s. per ton, f.o.r. works. Dealers offer spot at £9 7s. 6d. for 35 to 37 per cent. available chlorine. To arrive £8 5s. c.i.f.

COPPER SULPHATE.—Inquiries for export continue on a fair scale, and quotations vary from about £24 5s. up to £24 15s. and even £25 per ton, as quoted by the larger makers for casks f.o.b., less 5 per cent. discount.

CREAM OF TARTAR is steady but not in any great demand. Dealers quote at 76s. to 78s. 6d. per cwt., less 2½ per cent., according to quantity and source.

EPSOM SALT.—More business here with prices steady at £5 and upwards for commercial quality, spot, in bags.

FORMALDEHYDE continues in good request with prices for spot 40 per cent. by volume fully £40 15s. to £41 10s. per ton, ex wharf.

GLAUBER'S SALT has shown more life with prices for commercial quality steady at £3 11s. to £3 12s. 6d. per ton, ex wharf; slightly cheaper for quantities to arrive.

LEAD PRODUCTS.—Acetate of lead, brown, £42 10s.; white, £44 5s. per ton spot, quiet; red lead, imported, £43 per ton c.i.f.; white lead, dry, £44; ground in oil, £45 per ton c.i.f. London. Dealers' prices steady; market quiet.

LITHOPONE has been in good call on spot and prices are steady at about £20 to £20 10s. per ton for 30 per cent. Continental red seal, in casks, ex wharf.

OXALIC ACID is now very steady and inclined to harden from 3½d. to 3¾d. per lb. spot. More inquiry about.

POTASH CAUSTIC is unchanged at the Convention spot price of £29 per ton for 88 to 92 per cent. solid, in drums; cheaper for quantities to come forward.

POTASSIUM BICHROMATE is steady at the lower price now quoted by British makers of 4½d. per lb.

POTASSIUM CARBONATE is steady and business fairly good; spot, 90 to 92 per cent., £24 10s.; 96 to 98 per cent., from £25 10s. to £26 per ton, in casks. Forward delivery in quantities at cheaper prices.

POTASSIUM CHLORATE is short in supply and prices are firm at about 3¾d. to 4d. per lb.

POTASSIUM PERMANGANATE from dealers at 5¾d. to 6d. per lb. in drums has been attracting quite good business of late; market steady.

POTASSIUM PRUSSIAN is difficult to locate on spot and prices are stronger at about 7½d. to 7¾d. per lb.

SAL AMMONIAC has been moving in better quantities here and dealers' prices are steady: spot, dog-tooth crystals, £32 to £32 10s.; medium, about £30 to £30 5s.; fine white crystals, £21 10s. per ton, in casks, ex wharf; cheaper for quantities to arrive.

SALTCAKE for home trade from British makers is steady at about £3 15s. per ton, delivered in bulk.

SODA CRYSTALS (carbonate) from British makers for home consumers only is steady at £5 to £5 5s. per ton, in bags, ex rail depot.

SODIUM ACETATE is sluggish, and the quoted spot price of £18 per ton is unsteady.

SODIUM BICARBONATE.—Refined is unchanged with British makers' price at £10 10s. per ton, delivered.

SODIUM HYPOSULPHITE is steady but rather dull. Pea crystals, photographic, £13 10s. per ton, in one-cwt. kegs. Commercial quality, £9 per ton, in casks, ex wharf. British makers quote at £14 to £15 per ton for pure crystals, according to quantity, delivered to buyer's station.

SODIUM NITRATE is dull at level rates. 96 per cent., £12 5s.; refined, £12 10s. per ton, f.o.r. docks, London. Liverpool prices 2s. 6d. per ton less.

SODIUM NITRITE (100 per cent. basis) remains quiet with no change in London prices at about £22 5s. to £22 10s. per ton docks.

SODIUM SULPHIDE attracts little demand as quoted by dealers at £11 15s. for 60 to 62 per cent. solid in drums and £12 15s. for broken, ex wharf.

SULPHUR is steady, demand being only moderate. American crude is £5 7s. 6d. delivered Manchester. Terms for refined are called £9 12s. 6d. to £9 15s. for flowers and £7 15s. for roll delivered ex London warehouse.

COAL-TAR PRODUCTS, ETC.—No change of importance is recorded this week; carbolic acid, crystals, remains flat at a low price. Pyridine is dull and unsteady, and pitch is steady but not active. **ANILINE OIL** is moving fairly well with dealers' prices steady at about 7d. per lb., in loaned drums, carriage paid. Makers quote 7½d. naked at works. **ANILINE-SALT** from British makers is dearer at 8d. per lb., naked at works. **BETANAPHTHOL** continues steady with fair business at about 11½d. per lb., carriage paid. **TOLUOL** is receiving some attention from buyers; market steady. Pure, 1s. 10d. to 2s.; 90's, about 1s. 8d. per gallon. **XYLOL** is dull; Pure, 2s. 2d.; commercial, about 1s. 9d. to 1s. 10d. **CARBOLIC ACID**, crystals.—This important item remains very quiet and prices are still at a comparatively low level; quoted at about 4½d. per lb., f.o.b. in quantities. **CRESYLIC ACID** is unsteady and rather cheaper at about 1s. 5d. per gallon for 97 to 99 per cent. Pale (95 per cent.) is 1s. 6d. per gallon. **NAPHTHALENE** finds very little demand. Importers quote flakes or balls at £13 per ton and crystals or powder at £10 10s. to £11 per ton, in cases, ex wharf. Makers quote crude (whizzed or hot pressed) at £4 10s. to £5 per ton. **PURE METHYL ALCOHOL** is steady and in fair demand as quoted by dealers at about £47 per ton, for small lots in drums, ex wharf. **PYRIDINE**, which weakened last week, is still flat and unsteady at close up to 19s. per gallon. **PITCH**.—Inquiry is still rather limited, but the market is holding steady at about 41s. 6d. per ton, f.o.b. East Coast.

Fixed Oils, etc.

EXCEPT for soya bean oil, products in this market have been very quiet, and most show some material fall in values. Palm oils are down again, and cotton oils are cheaper. Linsed oil shows a decline on a quiet market. **ACID OILS** are very quiet, and values unsteady: coconut and palm kernel, 39s.; groundnut, 37s.; soya, 35s. spot. **CASTOR** is idle with a big fall in values recorded: pharmaceutical, 55s.; first pressings, 50s.; second pressings, 46s. spot, in barrels in not less than one-ton lots. **COCONUT** is quiet and values easier: deodorised, spot, 52s.; Ceylon, 46s. c.i.f.; Cochin, 59s. c.i.f. **COTTON** is very flat and weak at cheaper rates: deodorised, 51s.; common edible, 49s.; soapmaking, 44s.; crude, 40s. spot. **GROUNDNUT** is quiet and values unchanged: deodorised, spot, 55s.; crude Oriental, 48s. **PALM KERNEL** is quiet and unsteady: deodorised, about 48s. 3d.; crude, about 44s. spot. **PALM** is very dull and values are again easier: Lagos, 38s.; softs, 37s. 6d.; mediums, 38s.; hards, 38s.; bleached, 40s. 9d. spot. **RAPE**.—No further fall in values is recorded, but the market remains dull: refined, 53s.; crude, 50s. spot. **SOYA** is firm at slightly improved prices: deodorised, 49s. 6d.; crude, 43s. 6d. spot. **LINSEED** (raw, naked).—After some quiet days the market closes at lower rates, especially for forward positions, but is now steadier. On spot, 37s. 6d.; November-December, 36s. 4½d.; January-April, about 36s. 4½d.; May-August, about 36s. 6d. Boiled oil, 39s. 6d. spot. **HULL**, on spot, 36s. 1½d.; November-December, 36s. 1½d.; January-April, 36s. 4½d. **TURPENTINE**.—American quotations having rallied well from the worst up to fully 105 cent. at Savannah, which is attributed to reduced receipts, our market has hardened somewhat, although business has been on the quiet side. Last week's London deliveries were only 1,319 barrels, making since January 1, 75,793 barrels, against 80,692 barrels a year previous. Including the quantities afloat and landing, the visible supply amounted to 56,115 barrels, comparing with 42,008 barrels at the same date last year. Market on spot closes at 76s., November-December at 76s. 3d., and January-April at 78s. 3d. per cwt. **WOOD**.—Hankow on spot is dull with prices easier at about 64s. per cwt. in barrels.

LUBRICATING, MINERAL, AND BURNING OILS, ETC.—General conditions show little change on the week. Prices, except for fuel oils, which are cheaper, are level. Business is, in most cases, rather small. **BENZOL** is very steady, and supplies

limited: crude 65's, 1s. 3d.; standard motor, 1s. 8d.; pure, 1s. 11d. per gallon, ex works, in tank wagons. **FUEL OILS** are quiet and values easier: 950 gravity, £3 17s. 6d.; 890 gravity, £4 7s. 6d. per ton, ex tank. **PARAFFIN WAX** and **SCALE**.—Wax is steady at 3½d. to 5d. per lb., according to melting point, in bags, ex wharf. Scale is very firm at 28s. 6d. per cwt, c.i.f. U.K. port. **PARAFFIN OILS** are steady, and prices unchanged. American standard white, 1s.; water white, 1s. 1d. per gallon, barrels free. Russian prime white kerosene, 6d. to 6½d., ex tank; 6¾d. buyers' barrels filled free, and 10½d. per gallon, barrels free, ex wharf, London. **WHITE OILS** are steady and business quiet. Special No. 1, £23; No. 2, £26 10s.; No. 3, £24 7s. 6d.; No. 4 half-white, about £15 per ton, drums and barrels free, ex wharf, London. **SOLVENT NAPHTHAS**.—Business is limited and market steady: 90/160, 1s. 4½d.; heavy 90/190, 1s. per gallon. **PETROLEUM JELLIES**.—Market quiet and rather easy as quoted: white to snow white, £55 to £59; amber and yellow, £19 10s. to £23; red vet, £19 12s. 6d.; dark stiff green, £15 per ton, ex wharf, barrels free. **LUBRICATING OILS** are fairly steady, but still quiet; shipment conditions steady. Spot: pales, £11 to £13 7s. 6d.; reds, £13 5s. to £23 7s. 6d.; dark cylinders, £13 10s. to £34; filtered cylinders, £21 to £34, less 2½ per cent., ex wharf, London. **SOLUBLE OILS** and **CUTTING COMPOUNDS**, £20 to £29 per ton, according to grade. No. 1 **RUSSIAN OIL**, about £17 15s. per ton, less 2½ per cent., ex wharf.

Bulgarian Rose Oil Exports

DURING the month of July, according to official statistics, Bulgaria exported 670 kilos of rose oil, valued at 27,334,295 leva, to the following countries: Great Britain, 63; Germany, 16; Italy, 1; United States, 322; France, 263; Holland, 0.350; other countries, 5 kilos. During the first seven months of the present year exports of rose oil totalled 1,421 kilos, value 53,498,473 leva.

Portuguese Olive Oil

THE Ministry of Agriculture reports that the production of olive oil in Portugal in 1924 totalled 44,305,000 litres, against 43,342,000 litres in 1923, and 32,218,000 litres in 1922. Practically one-quarter of the total yield is produced in the Santarem district, in the vicinity of which is the town of Setubal, the chief centre of the Portuguese tinned fish industry, which consumes large quantities of oil. The production is insufficient to meet the requirements of the population and of the tinned-fish industry, and last year 562,569 kilos (1923: 1,729,376 kilos) of olive oil had to be imported, chiefly from Spain. Exports of olive oil from Portugal, principally to the Portuguese colonies and to Brazil, are limited on account of the demands of the home market, and amounted to 761,270 kilos in 1923 and 1,183,391 kilos in 1924.

West Indian Orange Oil Exports

ACCORDING to a report from the U.S. Department of Commerce, no separate statistics of the production of orange oil are recorded by the Government of Jamaica, it being grouped with other essential oils. A careful estimate indicates that in 1924 the total exportation of orange oil to all countries amounted to about 11,587 gallons, valued at approximately \$159,786. The declared exports of the American consulate at Kingston for 1924 show that orange oil ranked as seventh in point of value among the declared exports from Jamaica to the United States, 65,740 pounds, valued at \$115,933, having been shipped during that year as compared with 108,926 pounds, valued at \$203,527, in 1923, resulting in a decrease of \$87,593 in declared value, due to a falling-off in production on account of drought, high winds and floods. No records in Jamaica differentiate between the volume of exports of sweet and bitter orange oil, but the principal exporters of both varieties estimate that about one-eighth of the total is that classed as bitter. The market price of orange oil varies, according to market conditions, from 5s. to 8s. per pound for the raw product, the sweet variety usually being quoted at about 1s. per pound more than the bitter.

German Bromide Market

THE principal event on the German chemical market has been the breaking up of the bromine convention, which, in fact, never went beyond the stage of temporary agreements. This was due to the attitude of those potash works which also manufacture bromides from bromine produced in their plant, and whose interests were, in many cases, incompatible with those of the other participants. Another obstacle to the successful operation of the convention lay in the impossibility of winning over those manufacturers who preferred to remain outside the arrangement. Since there are now fairly considerable stocks of bromine available, and that there is also a possibility of large supplies of bromides being thrown

on the market, prices are liable to fluctuate in future in consequence of competition. Sodium bromide for export is quoted at about \$70, while potassium bromide is scarcer and fetches about \$75, and ammonium bromide \$82-83, per 100 kilos, f.o.b. Hamburg. This does not affect the new arrangement for regulating the price of bromine; however, since fairly large stocks of the latter have accumulated in consequence of the very small demand, it is generally expected that the present margin between the price of bromine and that of bromides will shortly disappear owing to pressure of circumstances.

The Sugar Market

In the course of a review of the sugar position, the "Produce Markets Review" states that the fall in the value of raw Cuban centrifugals to two cents per lb. has further depressed the market and has caused a similar decline in other cane sugars for refining purposes. The price named, according to experts, must represent a serious loss to the producer, and the fact that Cuba has been compelled to seek outside markets to get quit of her "record" production adds a serious factor to her position, as her action deprives her of the protection given her by the United States. According to the latest figures available, the receipts of Cuban sugars this year at the Atlantic ports were 111,875 tons less than in 1924, notwithstanding her record production; but this shortage was more than made up by the imports of Porto Rico, which were 175,529 tons larger, and that of the Philippine Islands, which were also greater than the previous year by 94,000 tons. These figures are significant of some change in method of mode of production, or of exceptionally good crops, which may have lowered the cost of manufacture; but the fact remains that Cuba has lost ground in her principal market owing to the heavy import of free raw sugar to the U.S. Whether any of these cane crops will show a profit this season is immaterial to the consumer, but at present the markets show no signs of an improvement in value, and this must sooner or later have a certain bearing on the future extent of unremunerative cane-growing. Meanwhile the knowledge of ample supplies only helps to exaggerate the present cautious policy of the distributor.

Lime Products of the Gambia

In the course of the annual report of the Department of Agriculture for the Gambia for 1924 it is stated that for many years past Dominica has supplied the bulk of the lime juice and lime products required by the trade, her annual shipments having exceeded in value £170,000. During recent years, however, owing to disease in many of the lime plantations in Florida, Porto Rico, Cuba, Dominica, Trinidad and Demerara causing a considerable reduction in output, it is essential that attention be paid to the opening up of new producing areas, so that Imperial requirements may be met. This matter has received the special attention of the department, the director of which sees no reason why a profitable lime-juice industry should not be established in the Gambia in the near future. Results have shown that juice rich in citric acid can be produced in this colony, and in one instance lime grown at Yundam gave a citric acid content of 15.10 oz. per gallon, compared with from 12 to 14 oz., which is the usual content of fresh lime juice. It has not yet been possible to make actual tests as to the local yield of otto of limes and distilled oil, but the director is of opinion that they would not be inferior to those obtained in the West Indies. At the present time large numbers of plants are being raised from West Indian seed obtained from a colony at present free from disease. It is proposed to make free distribution of these plants to farmers for planting in suitable localities under supervision. When these plants commence to bear it will be necessary for the Government, or for one of the trading firms, to erect and equip a small factory for the manufacture of the various lime products, to ensure a ready local market.

The Dominican Lime Industry

DR. MARTIN LEAKE, Imperial Commissioner of Agriculture, in the report of the Dominica Agricultural Department, which appears in the "West India Committee's Circular," states that in spite of the ravages of witherip disease in the interior, the cultivation of limes remains the principal industry of the Presidency. Owing to low prices and the difficulty of effecting sales quickly in London, the majority of planters agreed in 1923-24 on a common line of action in regard to concentrated lime juice. For the time being it is intended to hold stocks in the island until sales at satisfactory rates, if possible, can be brought about. A considerable amount of good has already followed this collective action, better prices have been obtained, as well as a reduction in warehouse and other expenses. It is largely

due to this arrangement for holding stocks, rather than to the ravages of witherip, that the figures for the year under review make such a poor showing. The lime crop for the five years ended December 31, 1923, calculated in barrels of fruit and expressed in round numbers is recorded below:—1919, 402,000; 1920, 369,000; 1921, 516,000; 1922, 400,000; 1923, 228,000.

The following table calculated on the usual basis* shows the disposal of the crop under the various heads:—

Product	Barrels of fruit	Approximate percentage of total crop
Concentrated juice	118,908	52.1
Raw juice	57,186	25
Fresh limes	20,748	9.1
Citrate of lime	21,568	9.4
Citric acid crystals	9,256	4

Comparison with the figures of the preceding year's disposal of crop shows the following changes. Concentrated juice fell from 60.9 to 52.1 per cent., and raw juice rose from 9.6 to 25 per cent. Fresh limes represented 9.1 per cent. of the crop shipped. Citrate of lime showed a heavy drop from 21.5 to 9.4 per cent., while citric acid crystals improved from 1.7 to 4 per cent. The small business carried on in pickled limes and in lime juice cordial accounted for 279 barrels of limes only. Every effort was made to find new industries and experiments with tobacco, ginger, bananas and logwood showed more or less promising results.

* 50 gallons concentrated juice represents 75 barrels lime fruits; 7½ gallons raw juice presents 1 barrel lime fruits; 1 ton citrate of lime is equivalent to 226 barrels lime fruits; ton of citric acid is equivalent to 400 barrels lime fruits.

Java Produce Exports

OFFICIAL figures are now available showing the exports from Java and Madura during the first six months of the present year; in the table below the statistical returns for 1925 are given, as well as those for the corresponding period of 1924 (amounts in kilos):—

	Citronella oil Jan.-June		Cubebbs Jan.-June		Black Pepper Jan.-June	
	1924	1925	1924	1925	1924	1925
Holland ..	21,232	40,437	37,055	2,449	774,000	62,000
Gt. Britain ..	47,671	59,801	—	2,217	1,085,000	205,000
Germany ..	1,935	9,550	—	—	212,000	—
France ..	109,730	147,391	—	—	—	—
Italy ..	267	534	—	—	218,000	10,000
U.S.A. ..	47,055	144,726	—	371	3,468,000	2,335,000
Singapore ..	—	345	88,797	200,223	1,561,000	1,491,000
China ..	6,126	3,533	—	—	138,000	129,000
Japan ..	26,223	19,003	—	—	—	—
Philippines ..	—	1,017	—	—	—	—
Australia ..	5,210	5,959	—	—	—	—
Other countries..	1,744	—	62	—	78,000	150,000
Total ..	267,193	432,296	125,914	205,260	7,534,000	4,382,000

	Cinchona Jan.-June		Coca Jan.-June		Dammar Jan.-June	
	1924	1925	1924	1925	1924	1925
Holland ..	2,550,000	1,861,000	433,810	450,996	62,000	32,000
Gt. Britain ..	312,000	381,000	—	—	34,000	19,000
Germany ..	—	—	48,670	10,122	69,000	64,000
France ..	—	—	—	—	46,000	65,000
Spain ..	—	—	—	—	41,000	42,000
U.S.A. ..	—	—	—	—	675,000	618,000
Japan ..	690,000	207,000	205,256	216,069	105,000	36,000
British India..	51,000	59,000	—	—	—	—
Singapore ..	6,000	—	—	—	—	—
Other countries	—	5,000	—	—	31,000	36,000
Total ..	3,609,000	2,513,000	687,736	677,187	1,063,000	912,000

From January to June, 1925, Java exported 96,820 kilos of quinine, compared with 95,427 kilos during the same period of last year.

CASTOR OIL FOR CZECHOSLOVAKIA.—Castor oil for technical purposes pays a duty of six Czech crowns per 100 kilos on admission in Czechoslovakia, provided it is immediately denaturated by the importer by the addition of oil of rosemary. In view of the high price of this denaturant, consumers are agitating for a repeal of this proviso, or failing this, that the use of another, less expensive, denaturant, such as elain, be permitted.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

British versus Foreign Goods

SIR,—I agree, though in a different sense, with Mr. Tanner (*C. & D.*, October 24, p. 597), when he writes: "The British public . . . only want to know what is foreign in order to make their choice." My experience is the British public revel in buying things of foreign manufacture. True, during the war they shouted "Never again!" The morning after the Armistice they forgot all about it. The slogan, "Buy British Goods" is excellent so far as it goes, but it won't go far. Americans and Continentals, almost without exception, demand goods of their own country's make. To the Britisher it is a matter of indifference. The only remedy is the Safeguarding of Industries Act. I cannot understand why the makers of soaps, tooth-powders, face powders and creams do not bind themselves together and get this Act put into force. It is only when the foreigners see that we treat their manufactured goods as they treat ours that we shall secure fair treatment in their markets.

Yours truly,

Eastbourne.

ARTHUR MILLS.

SIR,—The correspondence on "Buy British Goods" has been quite interesting. It shows that pharmacists, in common with other thinking business men, are waking to their responsibilities. Mr. A. L. McCredie, in an article in the September issue of "System," writes: "It is now widely recognised that our manufacturers must make and sell a much larger quantity of the goods being consumed at home and abroad if, as a nation, we are to pay our reckoning, conserve our capital, and maintain our standards of living. So desperately vital are these three admitted necessities of our national existence, that to help forward such increased selling becomes the personal responsibility of everyone." A few days ago I had a conversation with a well-known business man, who had just returned from a visit to Canada and the United States of America. He had a keen sense of the difference between this country and those that he had visited on the other side. "Here," said he, "we are only scraping the surface of things; a bigger turnover would halve the difficulties by which Britain is menaced." The retail pharmacist has wonderful opportunities to do his bit in getting this "bigger turnover" for Britain. No sacrifice is required to do this, as, with a very few exceptions, the best articles are made in Great Britain. Your readers are intimately concerned with the perfumery and toilet trade, in which the foreign element is very strong. The public have drifted into the belief that British perfumes are inferior to foreign. This is quite wrong—our leading perfumes are equal to any in the world. Lavender water, popular all the world over, stands out conspicuously and is essentially British. Floral perfumes—those that give the true odour of the flower—some of the most successful ever placed on the world's markets have been British. I can well remember when, if you wanted a decent shave, you had to use an American shaving soap. Things to-day are very different; many of the best shaving sticks and creams are British-made. The buying public need educating and rousing to a sense of their responsibilities. The manufacturers are doing their best in this direction, and it is our duty to back them up. We can do this most effectually, since we come into direct contact with the purchaser. We shall lose nothing now, and we shall benefit enormously in the future by giving preference to British makes. Let us support our own country and help ourselves into the bargain by helping the British manufacturer to provide more employment. What finer slogan could we have, one that not only appeals to the business mind by its expediency, but to the heart by its sentiment, than "Buy British goods"?—I am, etc.,

Ealing, W.5.

THOMAS MARNS.

SIR,—As a retailer I heartily sympathise with Mr. Tanner's letter on British versus foreign goods, but he makes the mistake of believing that the public would refuse foreign goods if they knew the country of origin. With regard to tooth-pastes, shaving sticks, manicure requisites, etc., time and time again have I produced an assortment of British-made articles, to be met with the demand for So-and-So's make, and on pointing out that this particular make is a foreign one, whereas the goods displayed are British, nine out of ten such customers insist on the foreign make. If I refused to stock the foreign make it would simply be driving custom elsewhere, and I am not so well off that I can afford to play a lone hand at this game. To do this successfully one would have to achieve agreement among not only chemists, but stores, hairdressers, and all kinds of trades, which is impossible. I have often tried in vain to reason out the cause of this attitude on the part of the shopping public. Another matter which always puzzles me is why doctors and dentists are so ready to take up and prescribe foreign proprietary remedies; a little educational propaganda in this direction might help on the sale of British goods.

Faithfully yours,

PUZZLED (27/10).

SIR,—The letter you published in your issue of October 24 from Messrs. Rimmel is one of a large number which I have received from manufacturers direct. My intention, however, was to stir up the retailer. What is the use of asking the public to buy British goods when every dealer is stocked up with foreign-made articles? Half our patent medicines are American; France is pre-eminent in perfumery and toilet powders; Japan is getting a strangle-hold on the brush trade; cut-glass bottles, sprays, puff bowls, etc., all come from the Continent. Now Danish soaps are being pushed in London for all they are worth. May I ask my brother-pharmacists to do their utmost to push British-made goods on every possible occasion? Give our customer the privilege of deciding between the two makes and we shall find they will support the old country nineteen times out of twenty.—Yours truly,

T. W. CLEAVE.

Blackheath, London, S.E.

The Late Mr. C. C. Bell

Mr. Otto Raubenheimer, Brooklyn, N.Y., writes: Upon return from my vacation I notice with deep regret the death of Mr. Charles Christopher Bell ("Xrayser II"). For many years I have read with interest and profit your weekly page on "Observations and Reflections"; in fact, upon receipt of *THE CHEMIST AND DRUGGIST* this is the first page I turn to. As I expressed myself on previous occasions, "Xrayser II" was a true successor to "Xrayser I." I have greatly enjoyed the articles of both these contributors, especially those pertaining to the etymology and history of pharmacy, two subjects which are understood by so few pharmacists. Let us hope that "Xrayser III" (all good things are three) will follow in the footsteps of his eminent predecessors.

A. M. (14/10), in sending his subscription to the *C. & D.* for another year, writes: You have lost a grand bowler in Mr. Bell. The umpires were never troubled with "wides," and when he got the pitch to his fancy it was a mid-stump every time. May his actions and methods never fade.

"The Script" for October has the following note on the passing of "Xrayser II": The death of "Xrayser II" is an event in pharmacy extending beyond the ordinary reputation of a writer for the Press. There must be few chemists who are subscribers to *THE CHEMIST AND DRUGGIST* who did not feel a sense of personal loss. They knew not his face or form, yet in his weekly articles he was to them a vivid personality, whether they thought in his mould or otherwise. He contributed just a few casual notes to "The Script," but made many of our comments pegs on which to hang an opposite opinion. It is given to few people who are anonymous to exercise the power he did in moulding men's thoughts. One imitator in a contemporary said he was, naturally, against the Pharmaceutical Society. Such a statement is grossly

untrue, and should be put in the same class as the others from those in official positions who were too thin-skinned to appreciate the cold analysis of their speeches and actions by a detached mind. He criticised us in "The Script" pretty freely, but never did we fail to appreciate the keen understanding on which his criticism was based. We learned much from him and valued highly his opinion, whether it was favourable or adverse. Actors in any drama or comedy can seldom appreciate truly all the values, and it was an advantage to be brought down to a proper balance by one who knew and sympathised but was outside the game. . . . His character and expression were effective, and years of kindly thought and study had enthroned him in the hearts of his readers. THE CHEMIST AND DRUGGIST has lost a forceful personality and all of us a keenly discerning and kindly friend in C. C. Bell: "Xrayser II."

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics.

Examiners' Curiosity

If it is correct, as stated by "Pharmacist" (C. & D., September 26, p. 452), that candidates for the Qualifying examination are asked their age, what school they attended, and if it is their first attempt, I consider it a mistaken policy, as it is liable to give students the impression that the result of the examination does not depend solely on the result of their knowledge of the subjects. More than twenty years ago, when I was up for the Minor, one of the examiners asked me what school I went to; on my telling him, his remark was, "Oh, did you?" The incident left an unpleasant impression at the time, and it would be more tactful if examiners confined their questions to the subject in hand.—*Scholastic* (28/9).

White Fly Remedy

Referring to your reply to "B. R." (C. & D., October 10, p. 528), we should like to point out that nicotine is of no practical use against white fly. Ethylene tetrachloride is the best remedy in the way of fumigant, and cloths saturated with this chemical should be hung as high up as possible, the liquid being used in the proportion of 5 oz. per 1,000 cubic feet. It is quite safe to use with tomatoes, but will kill chrysanthemums and any foliage of any plant it touches. The trouble of white fly is best got over by growing the tomato plants oneself and being independent of the nurseryman, who is often careless of properly eliminating this pest, whose eggs come with the seedling plants. Proper fumigation needs a once-a-week treatment in the summer, but a thorough fumigation now and the clearing out of the soil will prevent a recurrence next year.—*L. & C.* (12/10).

Legal Queries

J. W. C. (21/10).—The label for the cough mixture should state that it "contains tr. camph. co. B.P. Poison $\frac{1}{10}$."

G. M. (20/10).—There is no legal claim to holidays unless these are embodied in an agreement. It is not usual to grant holidays to an assistant who only takes service for a year, but some employers are more generous than others.

C. C. L. (22/10).—The cough mixture requires to be labelled in conformity with the Labelling Order which comes in force on January 1, with the proportion of the poisons it contains. The Order was printed in the C. & D., II, 1924, p. 850.

H. A. (14/10).—The best way of labelling Household Ammonia is to state underneath the title the percentage of ammonia which, in the case you mention, is about 16. To say it "contains commercial strong ammonia 1/1"—"Liq. am. fort. 880 1/1"—is also in order.

F. P. (21/10).—The Labelling Order, which comes into force on January 1, only concerns the declaration of the

proportion of scheduled poisons contained in a preparation. As we do not know the composition of the female pills about which you write we cannot advise you as to the declaration.

F. Y. (13/10).—When a business is carried on in any other way than the surname and Christian name or initials of the Christian name of the owner, the name must be registered with the Registrar of Business Names. Particulars are given in the C. & D., February 14, p. 250, which no doubt you have by you.

A. C. B. (14/10).—We always advise that an indication should be given on the label of the medicine that the article is a pure drug, as the proof that it is not liable to stamp duty lies upon the vendor. The pure drug exemption applies only to medicines sold by qualified persons (such as chemists) or persons holding a medicine licence.

Cinnamon (17/10).—The mixture, the formula for which you sent, should be labelled as containing "Gum. opii B.P. Poison, 1/160." The Labelling Order comes in force after December 31. One year's notice will then have been given, and any preparation containing a poison which is not properly labelled renders the seller liable to prosecution under Section 17 of the Pharmacy Act, 1868.

T. & S. (22/9).—The label for Carbolic Mouth Wash would render the preparation liable to medicine-stamp duty because of the words "heals the gums quickly," but as a declaration of the composition is given on the label—we presume this includes the active ingredients—the article fulfils the conditions required for a "known, admitted and approved" remedy, and could be sold by chemists without being stamped.

Puzzled (16/10).—(1) The Preliminary examination must be passed and registration of an apprentice effected before the 4,000 hours in a pharmacy are started. The ordinary work of preparing medicines and pharmaceutical and galenical preparations is included in the training. Personal—if by that you mean particular—supervision is not required for each operation. The ordinary general supervision of the employer is all that is intended.

Bermundsey (23/10).—(1) Tr. opii contains 1 per cent. of alkaloid, and the limit in the Dangerous Drugs Acts is 0.2 per cent., so that to be outside the Act dilution of the tincture must be greater than $\frac{1}{5}$. (2) Insurance prescriptions which come within the Dangerous Drugs Acts must be treated in the same way as any other prescription similarly affected, except that the chemist is not required to keep Insurance prescriptions for two years; the Insurance Committee do that for him.

Ceylon (9/10).—(1) It is provided by the Poisons and Pharmacy Act, 1908, that a limited company carrying on the business of a chemist and druggist may call themselves chemists so long as they employ a qualified superintendent who has been registered as such by the Pharmaceutical Society of Great Britain. (2) It is risky for persons with limited knowledge of drugs to manufacture remedies, and we advise you to employ someone with technical knowledge before taking up this branch.

P. W. (20/10).—Apprenticeship to a limited company carrying on the business of a chemist and druggist as provided by the Poisons and Pharmacy Act, 1908, is in order. The apprenticeship is to the company and is signed on behalf of the company by the secretary. The form was printed in the C. & D., January 10, p. 49, and further information in the C. & D., October 24, p. 575. A difficulty that may arise is in regard to the attestation of a qualified chemist to the number of hours served. This, we think, requires some agreement with the superintendent that he will undertake this.

Capital (17/10) asks if in making his return of profits for income tax he is entitled to deduct as a trade expense what he pays by way of interest on capital employed by him in the business. [It is assumed that this is yearly interest paid on the capital. If so, it cannot be deducted as a trade expense. "Capital" can deduct the tax on the interest when paying it over to the lender, so that in paying on his gross profits, including the interest, he is paying something for which he has already recouped himself. The case is different if the interest is that paid on an overdraft from a bank to enable the business to be carried on. Interest paid in that way is an allowable trade expense and may be deducted.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

R. J. R. (2/10).—PHARMACEUTICAL COMMITTEE EXPENSES.—The note in the *C. & D. Diary* only deals generally with the position in an average area. If the actual amount available in any particular area is required certain data should be known. The following figures should be obtained from the Insurance Committee for each of the years in question:—(1) The total number of insured persons in the area. (2) The total value of all accounts for drugs and appliances. (3) The total amount of expenses granted to the Panel Committee. (4) The total amount of expenses granted to the Pharmaceutical Committee. Items 3 and 4 added together should be about 5 or 6 per cent. of (2). The only certain thing about these calculations, however, is that the sum 3 and 4 must not exceed the figure shown in (1) counted as pence. Up to the year 1920 the total amount available for the expenses of both Panel and Pharmaceutical Committees in any area was equal to the number of insured persons multiplied by one penny—A pence. The *Diary* note assumes that this amount would be roughly divided equally between the two committees, but this need not be the case. If in any year the Panel expenses only amounted to one farthing per person, there would remain according to the Health Insurance Act an amount equal to three-farthings per person per annum upon which the Pharmaceutical Committee could draw. If we call the Panel Committees' drawings B pence then the Pharmaceutical Committee's allowance can be up to whatever A minus B yields. The fund is obtained by proportionate deductions from the accounts of all the chemists in the area. The Insurance Committee knows what is the total cost of all drugs and appliances in its own area (that is the total amount due to all the chemists). All that is necessary, therefore, is to calculate what percentage deducted from this total will yield an amount equal to A minus B pence. If, in fact, in your particular area it was necessary to deduct ninepence for each one pound value of chemists' accounts, this would be approximately four per cent. of the total, and seems to indicate that the Pharmaceutical Committee's expenses amounted to about twice as much as those of the Panel Committee.

W. A. & Co. (10/10).—The usual thickening agent employed in thick sauces is starch, heated with the sauce until it gelatinises. We believe some of the makers are using pectin, a vegetable agent now made on a commercial scale for thickening jams and sauces.

Bangor (10/10).—"SHINY" NOSE, due to the exudation of fatty matter in the skin secretion, is usually overcome by the judicious use of face powder. It is probable that an over-secretion of fat could be checked by dietary precautions. The use of local astringents such as alum should be discouraged, as these may result in a redness which is more objectionable than the "shine."

Amser Gynt (12/10).—TREATMENT OF CANARY.—The cause of the tenderness in the canary's legs should be sought for. It is often due to the nails or claws being too long, in which case the claws should be trimmed to normal. Bathe the legs and feet with warm water to which a few drops of lysol have been added. When the legs are dry apply Lassar's paste or ung. ichthyol. dil., which will soothe the parts and should effect a cure if the cause is due to eczema.

H. E. H. (12/10).—ROUP POWDER.—The following is an alternative formula to that given in "Veterinary Counter Practice":—

Potassium chlorate,		
Boric acid	... of each	5 parts
Powdered anise	... ..	10 parts
Powdered mustard	... ..	20 parts
Linseed meal	... .. to	100 parts

Dose: For twelve chickens, a level teaspoonful mixed with the food.

J. B. H. (13/10).—The use upon ladies' hair of liquid grease solvents is not now favoured. Fatal accidents have resulted from employing petrol and carbon tetrachloride for the purpose.

A. B. (12/10).—GINGER-WINE ESSENCE.—The following is a suitable formula:

Sol. ess. of ginger	... ..	3iiij.
Sol. ess. of capsicum	... ..	3ij.
Sol. ess. of lemon	... ..	3j
Citric acid	... ..	3xviij.
Caramel	... ..	3xviij.
Chloroform water	... ..	3XL
Water	... .. to	3xcvj.

Mix.

To make the wine, add 4 oz. of the essence to a syrup consisting of 4 lb. of loaf sugar dissolved in 4 winebottlesful of water.

Other fruit wine essences can be made on the following model, substituting the appropriate essence for the black currant essence used in this recipe:

BLACK-CURRENT WINE ESSENCE

Essence of black currant	... ..	3viiij.
Vanillin	... ..	gr. iv.
Gingerin	... ..	gr. v.
Tartaric acid	... ..	3iiss.
Caramel	... ..	3j.
Salicylic acid	... ..	3ss.
Water	... ..	3iij.
Syrup	... .. to	3xvj.

Triturate the salicylic acid, vanillin, and gingerin with the essence gradually added. Dissolve the tartaric acid in the water, add the caramel and the essence mixture, and make up to 16 oz. with syrup. Set aside for a few days and decant. [5j. to a quart of thin syrup.]

Alipad (13/10).—POWDER DEPIILATORY.—The best non-poisonous depilatory is an alkaline sulphide of calcium, but, so far, our experiments of making a powder form results in destroying the potency. Sulphide of soda mixed with an inert powder, such as starch, may be used. The sulphide should not be stronger than 10 per cent.

Crusader (South Africa) (13/10).—TOBACCO FLAVOURS.—Analysis of the samples you send would not yield useful results, as it is practically impossible to separate essential oils and flavours. The lines to go on in preparing these liquids are indicated in reply to inquiries in the *C. & D.*, January 3, p. 32, and February 7, p. 214. There are no books on the subject so far as we are aware. A useful book on tobacco growing and curing is that by G. M. Odum, "The Culture of Tobacco," published in 1905 by the British South Africa Co., and obtainable at that time from the Department of Agriculture, Salisbury, Southern Rhodesia.

G. B. (14/10).—CHAMOMILE SHAMPOO.—The powder is made by adding some chamomile flowers in fine powder to the usual soap basis. For a liquid shampoo the addition of a small quantity of extract of chamomiles is made to one of the formulas printed in the *C. & D.*, October 17.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," October 15, 1875

Homœopathy

We can conceive few conditions more rich in pleasure than that of a confirmed and confident homœopath of the present day. We are not referring simply to the safe protection which the walls of his system afford him from the foul and cruel torments which allopathic remedies must inflict on the disciples of the old school. This consideration goes for something; but it is a loftier dream than this from which homœopathy derives its strength. To the allopath all is uncertainty, and the bases of his belief shift like the sand; to the homœopath all is light, definiteness, and scientific accuracy. His system, admitting a few postulates, is capable of being proved with mathematical certainty. And then—this enjoyment surpasses all the rest—he belongs to a persecuted and an ostracised sect. He has all the happiness with none of the inconveniences attendant on this blissful condition. He is a martyr for the truth, but a martyr in very comfortable circumstances. He is the pioneer of a new and glorious civilisation in medical science, and he proudly places himself, as Dr. Bayes does in this very address, by the side of Moses among the priests of Egypt, or St. Paul among those of Greece and Rome, as the apostle of a new Evangel. "Therefore," says Dr. Bayes, "we ought to accept calmly from our opponents such treatment in word and deed as we should carefully abstain from returning in kind."



[Commenced C. & D., July 5, 1924]

Cutch, Commerce of.—Cutch is derived from *Acacia Catechu* (also known as catechu, black catechu, catechu nigrum), and must not be confounded with gambier, which is official under the name of catechu. The two substances are quite distinct, and that obtained from *Acacia Catechu* is to be regarded as true catechu. To avoid confusion, Greenish says it would be well to adhere to the terms "gambier" and "cutch" for the two drugs, thus avoiding the use of the term "catechu," which has been applied to both. Burma, the Western Himalayas, and British North Borneo are the chief producers of cutch, where the industry is carried on exclusively by natives. The tree is felled and the heartwood cut into little chips and boiled in a cauldron until the fluid attains the consistency of syrup, when it is taken off and cooled. A ton of wood is said to yield 250 to 300 lb. of cutch. In 1895-1896 the exports from Burma and India were considerable—184,000 cwt. (£246,000)—but the trade has now fallen to between 45,000 cwt. and 60,000 cwt. per annum, owing to adulteration, faulty manufacture, limited demand and the introduction of cheaper substitutes, notably mangrove extract. Good cutch contains 10 to 12 per cent. catechin. The dyeing and tanning industries are the chief consumers, and it is also an excellent preservative for fishing nets and sails. The bulk of the consignments are usually made to the United Kingdom, other customers being France, Germany and Holland. *See also* Catechu.

The following figures show the imports, exports and re-exports to and from the United Kingdom from 1920 to 1923, the latest figures available.

Imports

	1920	1921	1922	1923
Total from foreign countries	Cwt. 831	Cwt. 14	Cwt. 53	Cwt. 176
Value £	3,115	19	87	356
British India	53,915	20,098	23,470	28,212
Straits Settlements and Dependencies (including Labuan)	10,287	5,530	11,720	13,941
Borneo, British	9,115	3,558	8,684	6,066
Other British Possessions	—	—	120	—
Total from British Possessions	73,317	29,186	43,994	48,219
Value £	228,217	60,205	68,110	69,119
Total	74,148	29,200	44,047	48,395
Value £	231,332	60,224	68,197	69,475

The following are imports entered in transit on through bills of lading:—

	1920	1921	1922	1923
Cwt.	5,667	5,171	7,986	10,869
Value £	20,106	13,283	14,398	16,087

Exports of Cutch Extract

	1920	1921	1922	1923
Total to foreign countries	Cwt. 214	Cwt. 281	Cwt. 927	Cwt. 920
Value £	833	633	1,666	1,943
Total to British Possessions	432	184	230	475
Value £	1,137	502	330	897
Total (cwt.)	646	465	1,157	1,395
Value £	1,970	1,135	1,996	2,840

Re-exports

	1920	1921	1922	1923
	Cwt.	Cwt.	Cwt.	Cwt.
Russia	1,961	830	3,310	1,661
Norway	860	1,200	1,417	898
Denmark	1,039	1,986	2,192	3,624
Germany	7,130	4,288	2,315	2,288
Netherlands	463	183	1,426	1,852
Belgium	7,249	4,131	4,043	4,190
France	2,851	2,386	1,857	701
United States	2,022	1,152	1,283	1,708
Other foreign countries	23,575	16,156	17,843	16,922
Total to foreign countries	78,627	34,302	28,094	25,096
Canada	667	114	810	442
Newfoundland and Labrador Coast	683	362	1,417	963
Other British Possessions	63	175	240	570
Total to British Possessions	1,413	651	2,521	1,975
Value £	3,681	1,287	3,833	2,952
Total (cwt.)	24,988	16,807	20,364	18,897
Value £	82,308	35,589	31,927	28,048

Cyanamide.—*See* Fertilisers, miscellaneous.

Cyanamide, or "nitrolim," is a black powder, containing 15 per cent. to 20 per cent. of nitrogen with about 20 per cent. of free lime, and finds its principal use as a fertiliser material. It is prepared by bringing together calcium carbide and atmospheric nitrogen gas at a fairly high temperature. The raw product is dusty and corrosive, and is usually treated in some way, generally with oil, in order to reduce its dusty character, and to render it granular. It is sold in wooden kegs or specially lined bags, as it is rapidly impaired by water and the fertilising value thus lowered considerably. On account of its lime constituent, it is valuable on "sour" or acid soils. Consumption in this country is very small, but on the Continent and in the United States very large quantities are produced and used. The following are the imports into Great Britain from 1920 to 1923:—

	1920	1921	1922	1923
	Cwt.	Cwt.	Cwt.	Cwt.
Norway	62,037	56,880	—	—
United States	—	—	2,420	8,847
Other foreign countries	—	—	2,200	3,275
Total from foreign countries	62,037	56,880	4,620	12,122
Value £	66,844	49,233	6,714	19,562

Czechoslovakia.—Pending the introduction of a pharmacy law for the new republic, the exercise of the profession is still regulated by the Austrian law of 1906; all pharmaceutical matters are dealt with by the Ministry of Health. The older pharmacies, the so-called privileges, are the absolute property of the owner, and can be transferred by sale or gift to another pharmacist, while those businesses opened since 1906 are personal concessions, i.e., on the death of the holder of the concession this reverts to the State, which selects a new concessionaire among the applicants for this right; the new concessionaire is obliged to take over the premises, stock and fittings at their actual value. In 1922 a pharmacy bill was presented to the National Assembly (*C. & D.*, 1922, I, index folio 595), but, owing to the opposition it encountered, it was finally withdrawn. All pharmacies were to be purely personal concessions, and after a period of forty years the existing privileged businesses would be converted into concessions, without any compensation to the owner. There was to be one pharmacy for every 8,000 inhabitants, and for every 5,000 souls above this number another pharmacy could be opened. The bill also provided for the creation of state and municipal pharmacies, and permitted public institutions as well as sick clubs to own pharmacies. The curriculum includes two years' apprenticeship, followed by a course of university study of two years; the diploma, which is granted after passing in all four examinations, carries with it the title of "Master of Pharmacy." The Austrian Pharmacopoeia is still the

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official standard. In 1924 the pharmacopœia commission began the publication (*C. & D.*, 1924, II, p. 789) of the proposed draft of the new national pharmacopœia, but in consequence of the criticism levied at the work of the commission, it was decided to elaborate an entirely new draft. Prior to placing a pharmaceutical speciality on the market, an application must be submitted to the Ministry of Health; in the case of foreign specialities the owner of a pharmacy in Czechoslovakia must act as the responsible representative of the manufacturer. New regulations for the manufacture, sale and importation of pharmaceutical preparations are in contemplation, based on the system of registration already in force in Austria, Poland, Spain, and elsewhere (*C. & D.*, 1923, II, p. 91). There are two official drug tariffs, one for the supply of medicines to private persons, and another to members of sick clubs, hospital patients, etc. The interests of members of the profession are upheld by the local associations of owners, and by delegates appointed by the various pharmacy assistants' organisations, pending the creation of a chamber of pharmacists. The sale of medicinal agents of any description is a monopoly of the pharmacist; druggists, however, are permitted to sell a limited number of simple (uncompounded) household remedies, as well as toilet articles and dietetic foods. The Czechoslovak customs tariff of 1919 contains specific rates of duty for a wide range of chemicals, etc., from which the following, as of particular interest to the drug trade, may be quoted; the actual chargeable amount of duty, i.e., basic rate multiplied by the "coefficient of increase," in Czech crowns for 100 kilos, is given: Vaseline and lanoline, in barrels, 312.—, in tins or small containers, 600.—; liquorice, 240.—; camphor, crude, free, refined, 468.—; caustic potash, 124.80; caustic soda, 96.—; boric acid, crude, free, refined, 144.—; potassium carbonate (up to 85 per cent.), 57.—, (over 85 per cent.), 108.—; calcined soda, 31.20; potassium nitrate, 120.—; refined borax, 180.—; sodium bicarbonate, sodium hyposulphite, 144.—; cream of tartar, refined, 288.—; copper sulphate, 90.—; glycerin, crude, 75.—; refined, 240.—; cresol, 67.20; ether, 2,175.—; compound medicines for human or veterinary use, surgical dressings, 1,710.— (if the alcohol content exceeds 15 per cent. they are dutiable at the same rate as spirituous beverages with admixtures); alcoholic aromatic essences, 4,500.—; non-alcoholic perfumes (powders, pomades, hair oils, tooth pastes), 5,400.—, the same, if containing alcohol, 9,000.—; soap, ordinary, 120.—, toilet or perfumed, 1,080.—.

D

Dagga.—A native name applied to *Cannabis sativa* in Cape Colony, where two other plants totally different in appearance from Indian hemp are also called dagga, the Indian hemp being distinguished as mak dagga, the two others, viz., *Leonotis Leonurus*, as wild or red dagga, on account of its reddish orange flowers, and *Leonotis ovata*, known as klip or rock dagga. Both belong to the N.O. *Labiata*. The wild dagga is smoked by the Hottentots instead of tobacco. In Natal it is used as a remedy for colds. Dr. Pappe ("Flora Capensis Med.," p. 33) remarks that it has a peculiar scent and nauseous odour, and seems to possess narcotic effects if incautiously used. A decoction is employed in chronic cutaneous eruptions, and may even be tried in leprosy; a decoction of the leaves is also used as a strong purgative. The fact that the name dagga is applied to these plants seems to indicate that they are recognised as possessing properties of a sedative or excitant and soporific effect similar to those of Indian hemp, and probably led in 1907 the Colonial Secretary (Sir P. Faure) to introduce a bill in the Cape Legislative Council to prohibit the cultivation or sale of these three plants, a bill which was wisely rejected and withdrawn. Nevertheless the physiological properties of *Leonotis Leonurus* are well deserving of investigation, as it apparently contains enzymes that affect its constituent principles. Dr. Andrew Smith remarks that

the nectar in the corolla is intensely bitter before the flower opens, but that when it expands it becomes sweet and is sipped by the sugar birds.

Damages.—The pecuniary compensation which the law affords to a person for the injury he has sustained by reason of the act or default of another is called damages. The act or fault for which compensation is awarded may arise either from a breach of contract or a tort (civil wrong) perpetrated by the person against whom an order to pay damages is made. In theory, the principle underlying the granting of damages is to place the injured party, so far as pecuniary compensation can do so, in the same position that he would have been in had the act or default in respect of which he is compensated not occurred. In practice, it is not always possible fully to compensate a person for the consequences of a breach of contract or an injury; conversely, "exemplary damages" are sometimes awarded with a view not only to compensating the aggrieved party, but also to punishing the party at fault. The general rule is that only such damages are recoverable as arise naturally from and are the immediate consequence of the act or neglect complained of. In respect of a breach of contract, only such damages as may reasonably be supposed to have been in the contemplation of both parties, when the contract was made, as the probable result of its breach, will be granted. If, by reason of exceptional circumstances, the plaintiff can show that he suffered special damages he will succeed in recovering them only if he can prove that the defendant knew of the special circumstances when the contract was entered into and contracted on that basis. "The measure of damages" is the standard or method by which the amount of damages to be awarded in a particular case is calculated. There are certain definite guiding principles—varying with the nature of the case—upon which the Courts base their awards. The rules applied in determining what consequences of a wrongful act are and what are not the proper subject of compensation rest, for the most part, upon judicial decisions. The assessment of the exact amount of money to be awarded to a successful plaintiff is a matter for the jury or the judge before whom the action is heard, having regard to all the circumstances of the case.

Dammar is the name given to several hard resins imported from the East, the exact botanical origin of which has not been determined with certainty. For practical purposes they may be enumerated as follows: (1) Dammar proper, or East Indian dammar. The main supply comes from Batavia and Macassar, and *via* the Straits Settlements, and is known as Singapore or white dammar. It occurs in stalactitic pieces, or in quite small nodules $\frac{1}{4}$ in. to $\frac{1}{2}$ in. diameter. It is soluble in fixed and volatile oils, especially turpentine and boiling linseed oil, benzol, and petroleum spirit, but incompletely in cold alcohol, and begins to melt at 302°. It is obtained from a coniferous tree, *Dammara australis*, a native of Borneo, Sumatra, Java, and the Moluccas. It is largely used in varnishes for coachbuilders and painters, and in microscopical varnish for ringing slides, etc. (2) Rock dammar is apparently furnished by two species of *Hopea* (*Hopea odorata*, Roxb.), in Rangoon, Pegu, Martaban, and Tenasserim, and *H. micrantha*, Hook. & G., in Malacca, Sumatra, Borneo, and Labuan. It occurs in nodules about the size of walnuts, of pale straw colour or colourless, dissolves readily in turpentine oil and benzol, forming a clear bright solution and drying rapidly and smoothly when applied as a varnish, and is rather superior to East Indian dammar in hardness. The best dammar is the white transparent Batavian dammar (*Hopea odorata*, Roxb.), in pieces varying in size from a marble to a walnut, sold in this country in oil shops under the name of mastic. (3) Sal dammar is produced by the Sal tree (*Shorea robusta*, Gaertn.), in the eastern districts of India, also in Borneo and Sumatra, and apparently also by *S. sericea*, Dyer, in Malacca, and

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S. Tumbuggaia, Roxb.) in the Western Peninsula and Mysore. It occurs in yellowish striated stalactitic pieces, is soluble in turpentine and fixed oils, and easily in benzol. A turpentine solution two parts resin to two and a-half parts oil of turpentine makes a good varnish for lithographic drawings, being nearly colourless, clear, and drying rapidly without cracking, also a moderately good tracing paper. It only appears occasionally in English and French markets. (4) Black dammar is obtained from *Canarium strictum*, Roxb.; and possibly other species, in the Tinnevely district of Southern India, by the action of heat. Although largely used in India for making bottling wax and varnishes, etc., it comes only occasionally to this country, and would hardly compete with common resin. It is met with in bright, black, stalactitic pieces. The Malaya section of the British Empire Exhibition at Wembley made an imposing show of dammar resins (C. & D., September 13, 1924, p. 397).

Damiana.—This drug appears to have been introduced as an aphrodisiac into the United States in 1875, and consists of the leaves of one or more species of *Turnera*, nat. ord. *Turneraceae*. In a paper on damiana, read by Mr. H. Wellcome at the Philadelphia College of Pharmacy in 1875, he described three specimens from different sources that were evidently from distinctly different plants. That obtained from Washington (fig. 1) is illustrated in the "Pharmaceutical Journal" (3) vi (November 27, 1875), p. 423, and is known in commerce as Helmick's damiana. It is considered to be the best kind, and has been described as a distinct species under the name of *Turnera aphrodisiaca*, L. Ward, in the "Virginia Medical Monthly" (April 1876, p. 49). A second variety derived from Mexico has been referred to *Turnera diffusa*, Willd., but as this appears to be a Brazilian plant the identification is doubtful. This (fig. 2) has irregularly crenate leaves, which are wider in proportion. Both kinds are said to be derived from Mexico. Ramirez, in his "Synonymia Plant. Mex." (p. 25), mentions *Turnera aphrodisiaca*, Ward, and *Turnera Numifusa*, Endl., as used under the name of damiana, and also three composite plants, *Bigelovia veneta*, A. Gray, and *Chrysacintia Mexicana*, A. Gray, and as Senecio, sp.? The last may possibly be the plant identified by Holmes, ("Pharmaceutical Journal" (3) vi, p. 581) as *Haplopappus discoideus*, D.C., the leaf (fig. No. 3) of the Wellcome illustration on p. 423, i.e. Ramirez in the appendix mentions also another plant called damiana in Mexico. This is *Lippia fastigiata*, nat. ord. *Verbenaceae*. The *Haplopappus* appears to be the most frequent substitute, but it is evident there is the possibility of several different plants coming into commerce under the name of damiana. It may be stated therefore that Helmick's damiana (*Turnera aphrodisiaca*, L. Ward) may be distinguished by having wedge-shaped leaves rather less than one inch long and about $\frac{1}{4}$ in. wide in its broadest part, of a light green colour and a taste recalling that of figs. The leaf of *Haplopappus discoideus* has only three teeth on each margin, ending in a sharp point, while those of Helmick's damiana are bluntly serrate, six on either margin. The two photographic illustrations given in Squibbs' Atlas of the Official Drugs, pp. 381 and 382, under the titles of *Turnera diffusa* and *T. aphrodisiaca*, appear to be from the same plant, but not identical with *T. aphrodisiaca*, L. Ward, but may possibly be the *T. Numifusa* of Endlicher, which has been referred to the *T. diffusa* of Willd. in the Index Kewensis and elsewhere.

Dangerous Drugs.—The term was first used by the United Society of Chemists and Druggists in a bill introduced into the House of Commons in 1866, and referred to such poisons as were considered necessary to control. In pharmacy the term usually covered corrosive fluids, but in post-war legislation it has acquired a distinctive meaning, and covers "drugs of addiction."

Prior to 1909 an agitation had been carried on by humanitarians and religious organisations to suppress the Indian opium traffic with China. The suppression acquired an international aspect, and in 1909 the discussion was crystallised by an international commission at Shanghai, where it was resolved "to pursue progressive suppression of the abuse of opium, morphine, and cocaine being added, as it had come into use as a substitute in weaning opium habitués from their addiction. Drugs prepared or derived from these substances were included should they give rise to analogous abuses." The International Opium Convention was constituted at the Hague, and in 1912 the convention was agreed to on January 23. The text was translated in the C. & D., I, 1912, p. 193. It bound the contracting parties to apply laws and regulations for the manufacture, importation, sale or exportation of morphine or cocaine, and their respective salts: (a) To medicinal opium; (b) to all preparations containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine; (c) to heroin, its salts and preparations containing more than 0.1 per cent. of heroin; (d) to every new derivative of morphine, cocaine, or their respective salts, or to any other alkaloid of opium which might, after generally recognised scientific investigations, give rise to similar abuse and result in the same injurious effects. In Article 10, however, there was a provision stating that the rule of requiring the registration of sales of the drugs "shall not apply necessarily to medical prescriptions and to sales made by duly authorised pharmacists," or unless existing measures had already regulated the sales. The outbreak of war in 1914 led to a great increase in the use of narcotics, and the fact that all the habit-forming drugs were in Part I of the Poisons Schedule was quite insufficient to prevent abuse during this period of national stress. Under the Defence of the Realm Act a proclamation was issued by Order in Council prohibiting the import of cocaine and opium under the Customs Consolidation Act, 1876. A regulation was issued on July 28, 1916 (40R) dealing with giving, procuring, or supplying cocaine and the preparation of opium for smoking on somewhat similar lines to those later to be embodied in the Dangerous Drugs Act, 1920. The Peace Treaty embodied in Article 295 the principle laid down by the International Opium Convention, which went beyond anything found necessary during the war when the danger was greater. On May 4, 1920, the Home Secretary introduced into the House of Commons a bill to give effect to Article 295 of the Peace Treaty of Versailles, whereby Great Britain, in conjunction with other Powers, agreed to bring into force the treaty based upon the International Opium Convention of 1912. This bill became known as the Dangerous Drugs Act, 1920, and came into force on September 1 of that year. There have been subsequent modifications and additions to the parent Act in 1923 and 1925.

LAW OF DANGEROUS DRUGS.—There are three Acts of Parliament covering the term "dangerous" drugs, 1920, 1923, and 1925. These Acts apply to Great Britain and Northern Ireland. The drugs to which the Acts refer are: Opium, morphine, one-fifth per cent., or one in 500 (anhydrous morphine); heroin or diamorphine or acetyl-morphine, one-tenth per cent., or one in 1,000; cocaine and ecgonine, one-tenth per cent., or one in 1,000, and the respective salts of the drugs specified. In the Act of 1925 (not yet in force) coca leaves, Indian hemp, and preparations of resins therefrom, synthetic cocaine, extract and tincture of Indian hemp, and removal of all exempting limits of diacetyl morphine (diamorphine or heroin). It is unlawful to import or export raw opium save under licence. Prepared opium is prohibited. Medicinal opium is subject to specific regulations. The definitions are:—*Raw opium*: Powdered or granulated opium. *Prepared opium*: That which is prepared for smoking. *Medicinal opium* (1925): That which is covered by the definitions of the British Pharmacopœia. Coca leaves and cannabis are included by the Act of 1925.

The C.&D. Commercial Compendium

AUTHORISED PERSONS include chemists in business, or firms or corporations keeping "open shop" in accordance with the Pharmacy Acts, persons licensed for import, export, or manufacture; certified practising midwives (for preparations of opium), hospital dispensers (under special regulations), masters of ships and skippers of British fishing vessels (for tr. chlorof. et morph. co. and tr. opii), masters of foreign ships (on certificate of port medical officer), farmers and stock owners holding laudanum certificates, occupiers of factories and workshops (for cocaine eye drops), medical practitioners, dentists, providing their names are on the respective registers, veterinary surgeons, public analysts (for professional purposes), and persons in charge of laboratories so far as is necessary for their profession. A medical prescription is an authorisation to the person for whom it is written. Messengers must be in possession of a written and signed authority from the licensed or authorised person.

REGULATIONS MADE UNDER THE ACTS.—These came into force on September 1, 1921 and are Statutory Rules and Orders, and are made mainly under Section 7 of the primary Act. They must lie on the table of the House of Commons forty days prior to coming into force, so that any objections must then be made. S.R. & O. 864, May 20, 1921, deals with raw opium. It prohibits possession, sale or distribution to all save licensed or authorised persons. Attempts to procure, aiding or abetting to procure, are contraventions of the Regulations. Records in the style provided must be kept in a book set apart at each place where drug is dealt with. The conditions are on the licences. Morphine, cocaine, ecgonine, diamorphine, and medicinal opium are dealt with in S.R. & O. 865, May 20, 1921, 1087, October 2, 1922, and 1095, September 10, 1923. A chemist may manufacture at his shop in the ordinary course of his retail business any preparation, admixture or extract of the drugs. He may not sell within the limits to anyone but an authorised person. Medical practitioners, dentists and veterinary surgeons must furnish a written order which should be entered in the poisons register and the term "signed order" written in lieu of the name in the poisons book; the order is to be kept for two years; failing this method these persons must sign the poisons book as for a Part I poison. When the drugs are supplied to "authorised" persons the packages must have stated on the label the total contents in terms of the specified poison; in the case of pills, tablets, lozenges and similar articles the amount in each and the number in the container.

RECORDS.—All purchases and sales must be entered at the time of the transaction. The drugs within the limits are all Part I poisons, consequently they must be entered in the poisons book under the Pharmacy Act, 1868. In addition, a dangerous drugs register must be kept, with separate parts for each of the drugs. In lieu of entering in two books, a chemist may enter the record in the poisons book and make an appropriate cross reference in the "dangerous" drugs register. Records are to be kept for two years. The same method may be used in the case of prescriptions given by medical men, only substituting the prescription-book for the poisons book. All records, filed orders and prescriptions must be available for inspection up to two years.

PRESCRIPTIONS.—These must be in writing, dated, signed by the medical practitioner, dentist, or veterinary surgeon with the usual signature, with his full address. (If an official form is provided this must be used, but so far none has been issued.) The full name and address of the patient must be given. A dental surgeon must write: "For local dental treatment only"; a veterinary surgeon: "For animal treatment only." Each prescription must show the total amount to be supplied. The chemist must date it when dispensed and file and keep it for two years (*see* Records). National Health Insurance prescriptions do not require to show the address of the patient, but they must be entered in the

"dangerous" drugs register in full or treated as an ordinary prescription so far as records are concerned. The prescription is sent to the Insurance Committee pricing bureau. Prescription Repeats.—Prescriptions are allowed to be dispensed three times if so specified by the prescriber.

DRUG EXEMPTIONS.—A list of preparations is given, but these are only exempted if dispensed *per se*. Authority is taken in the 1925 Act, for the first time, to deal with exemptions. By Article 8 of the Geneva Convention, 1925, provision is made for the Health Committee of the League of Nations, acting upon the advice of the Permanent Committee of the Office International d'Hygiene Publique in Paris, to communicate to the contracting powers when medicaments are found not to be habit-forming and preclude the recovery of the drug from the preparation dealt with, when they would probably be removed from the Acts and Regulations.

HOSPITALS AND INSTITUTIONS are authorised to possess and use, through the pharmacist or medical officer. Supplies must be by a signed order of either of the persons specified. Orders for patients are to be entered on the case sheet and initialled by the prescriber when given. Stocks are allowed under the charge of the sister or nurse in charge. Any of the drugs required for stock are made out on a special form; if for an out-patient, they are entered under the appropriate heading in the "dangerous" drugs register. The orders are kept for two years.

LICENCES FOR DEALERS.—Wholesale druggists, manufacturers, importers, exporters, dealers and dispensaries are required to take out an annual licence which may be obtained from the Home Office, Whitehall, London, S.W.1. The fee varies according to the number of drugs to be sold, and conditions are attached thereto dealing with storing, supply, and provisions of annual returns.

PENALTIES.—Any person acting in contravention of, or failing to comply with the Dangerous Drugs Acts, or Regulations, or conditions of a licence, is liable on conviction to the following penalties or proportion thereof: (a) On indictment, a fine of £1,000 or penal servitude for 10 years, or both. (b) Summary conviction, a fine of £250 or imprisonment with hard labour for 12 months, or both. Withdrawal of authorisation of pharmacists after consultation with the Pharmaceutical Society.

DANGEROUS DRUGS. PERCENTAGES.—The limits prescribed by the Dangerous Drugs Act, 1920—that of 1925 has not yet come into force, *vide infra*. By the Act of 1923 the percentage was based (for Great Britain and Ireland) on one gramme, or if a liquid one millilitre, in one hundred millilitres of the preparation. The cocaine limit is on the basis of alkaloidal content 100 per cent., giving the legal limit of 0.1 per cent., or one in 1,000. *Diamorphine*: The same remarks apply up to the present time, October 31, 1925. In the Act of 1925 provision is taken to remove all limits and confine in future all diamorphine and its salts to medical prescriptions only. *Morphine* is defined as the anhydrous alkaloid; the limit is 0.2 per cent., or one in 500, and all salts and medicinal opium and preparations are calculated to anhydrous morphine. (*See C. & D. Poisons Card No. 4.*) The limits or scope of the 1925 Act are not yet defined, but on the ratification of the International Bureau and proclamation of the coming into force of the Act, all limits of diamorphine will be removed automatically, and the application of restrictions already specified for the limit will become operative for all quantities.

D.D.A. CARD.—The C. & D. Poisons Card No. 4 contains a summary of all necessary points in the Dangerous Drugs Acts and Regulations, with a detailed list of preparations and their strengths with particulars for labelling. The card (10 in. by 12½ in.) is sold at the office of THE CHEMIST AND DRUGGIST for 1s., post free.



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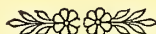
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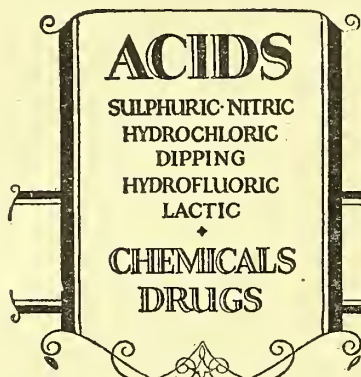
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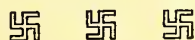
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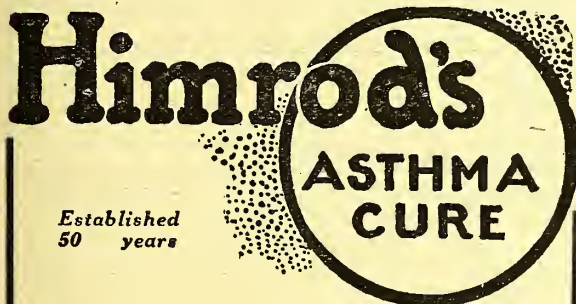
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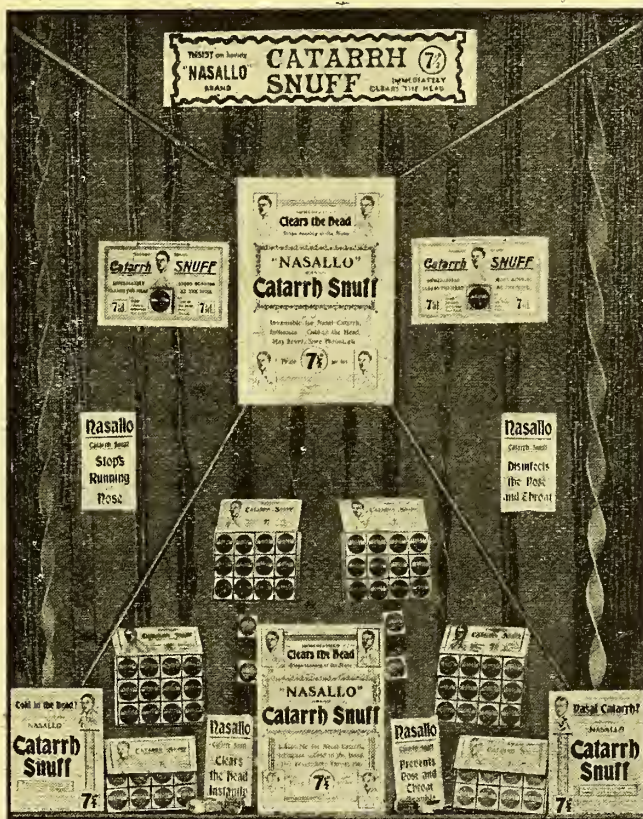
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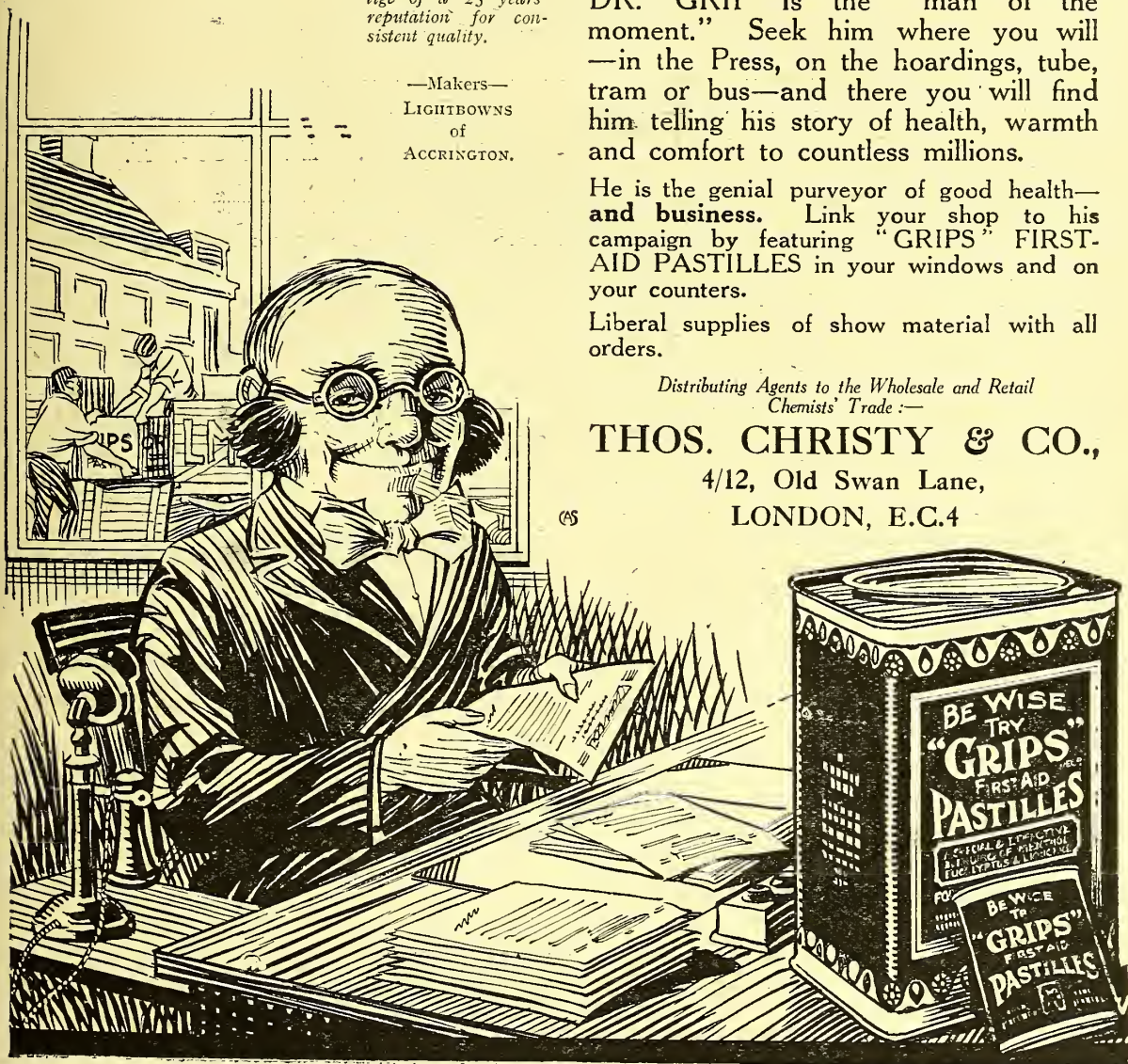
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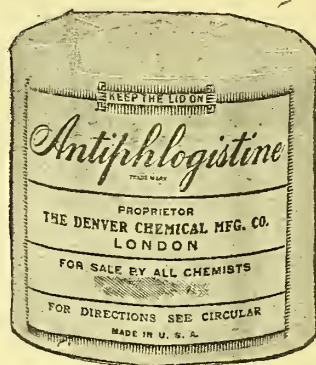
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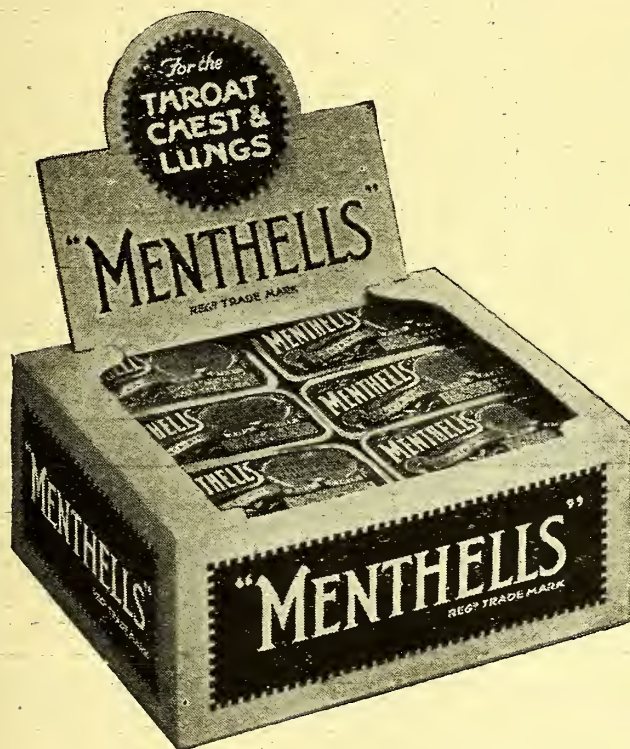
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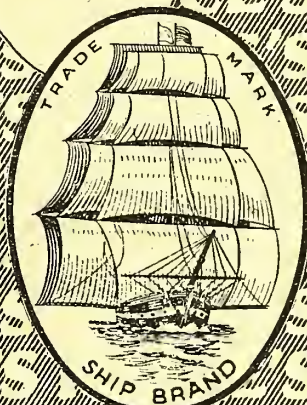
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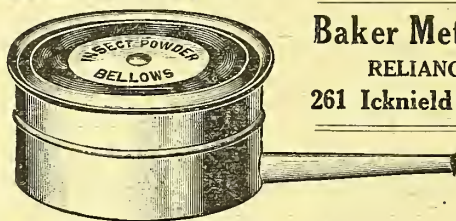
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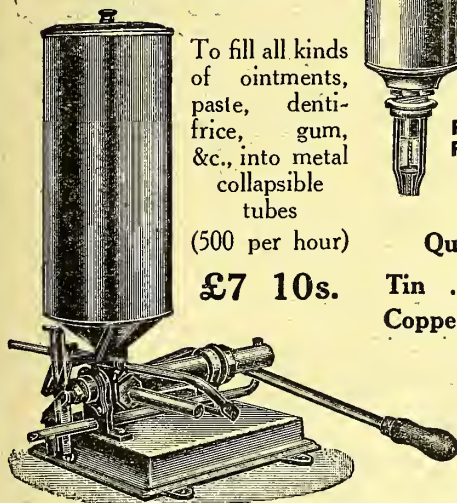
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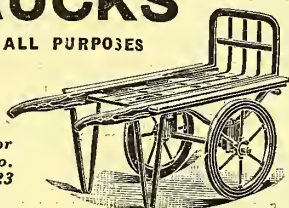
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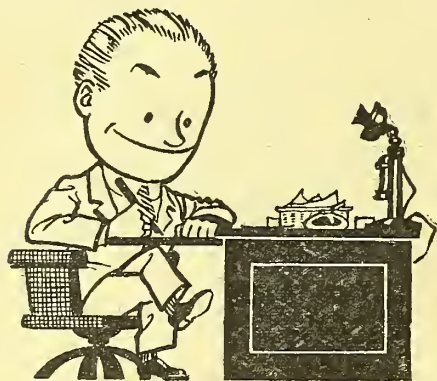
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to those many friends in various parts of the country who have written to us letters of appreciation in regard to the new issue of our General Catalogue just published. In order to simplify reference to the Sundries Section, this has been re-indexed and we are glad that our friends approve of the re-arrangement.

Our Printing Department also is flattered by your praise of their efforts to make each issue of the List better than the last and are repaid thereby for the stress of the last few weeks.

It must be borne in mind however that "May, Roberts" does not live by selling Catalogues, we give them away in return for a post card, and what we want are your orders.

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THE CHEMIST AND DRUGGIST

42 CANNON ST.
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SUPPLEMENT

OCTOBER 31, 1925.

This Supplement is inserted in every copy of The Chemist & Druggist.

THE SUPPLY OF SUPPLEMENTS.

The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note, therefore, that in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case the name and full postal address should be written on

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5.—NORTH LONDON.—Newly-established Business; returns, under management, £18 weekly, with scope for considerable increase; house sub-let to show profit rental; held on lease; valuation terms entertained, about £450 in all.

6.—NORTH LONDON.—General Retail Business, conducted under the management of a lady; returns, £1,180, at usual prices; well fitted double-fronted shop; good stock; net rent, £40; held on lease; price, £700.

7.—BRIXTON.—General Retail and Photographic Business; returns for last few months average £34 weekly at good prices; single-fronted shop; well-fitted; good working stock; moderate rent; long lease; offers invited.

8.—EAST COAST (Health Resort).—Middle-class Retail and Dispensing Business, with Photographic; returns exceed £1,300

per annum; net profit, £350; large double-fronted shop; rent, £60 yearly; held on lease; price, £1,250.

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DRUG STORE, LONDON.—Old-established, for immediate disposal; long agreement; well-fitted and stocked; thickly populated area; splendid opening for N.H.I.; very neglected, and can be greatly improved under personal management; good living accommodation; electric light; inclusive rental £68 5s. per annum; £650, including stock. Write "Rhei," 127/4, Office of this Paper.

FINE Opportunity for Chemists.—One of the best suburbs of Bristol; new district; no competition; attractive new shop and residence; monopoly for this trade; fortune for smart tradesman; price £1,500. Davey & Co., Ltd., Estate Agents, 113 Whiteladies Road, Bristol.

FOR immediate sale, Dispensing and Family Business, leasehold property inclusive; situated in residential part of Birkenhead, Cheshire; small living accommodation over shop; suitable for married couple without family, or bachelor. 126/25, Office of this Paper.

OLD-ESTABLISHED Retail Chemist's Business in North-East Manchester for quick disposal; has done £1,500 turnover. For particulars apply 74/438, Office of this Paper.

TO Chemists and Druggists.—Excellent opportunity to acquire established Business in main thoroughfare of flourishing East London suburb; good shop and residential accommodation; lease, 18 years unexpired; rent, £250; lease and goodwill at bargain price; stock and fixtures at valuation. Apply by letter to F. Rowland & Co., Chartered Accountants, 3 Thames House, Queen Street Place, E.C.4.

£195 ALL at stock, fixtures, fittings, goodwill; 14 years' lease; lock-up Pharmacy; electric light; good opening for N.H.I.; bargain for quick sale. 126/11, Office of this Paper.

£200 PURCHASES a neglected Chemist Business in centre Lancashire; good window; electric lighting; takings £12 a week; has done more; populous neighbourhood; low rent; living accommodation if desired. 124/20, Office of this Paper.

£380 OR near offer purchases Chemist's Business in growing neighbourhood; pretty country district 29 miles north of London; main road; returns average £15 weekly; Prescribing, N.H.I., and Kodak Agency; nearest opposition 4 miles; lock-up shop; living accommodation available adjoining; 5½ years' lease at £26 per annum; bargain for quick sale. Apply 127/10, Office of this Paper.

PREMISES FOR SALE.

FREEHOLD Premises for Sale, consisting of double-fronted shop, house and store-rooms; at present occupied by a Chemist; with less than one year's lease to run; splendid opening for Chemist to follow on; situated in bold position in busy market town near London; price, about £2,250. Reply 125/37, Office of this Paper.

BUSINESSES WANTED.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

AN established Chemist's Business showing fair returns wanted with good living accommodation in any busy district in Surrey or Kent, within 12 miles of London; would purchase premises outright. Apply, "P. M.," 125/30, Office of this Paper.

GENERAL Retail and Dispensing Business wanted within easy reach of London doing £40 to £50 per week. State reasons for disposal (which must be genuine), also give fullest particulars (in confidence). 124/24, Office of this Paper.

LIGHT Retail Drug Store required (or opening with vacant possession) in fairly populous locality in London area, suitable for either qualified or non-qualified, and with no very near opposition; one if neglected considered where scope; particulars treated confidentially; small capital available; no agents. "Confidential," 124/32, Office of this Paper.

MESSRS. BERDOE & FISH are in immediate want of Businesses, and vendors will find it to their advantage to correspond with us, we having at the present time a large number of genuine cash buyers with from £700 to £4,000 at command, and ready to take over at once; private registers kept, and strict privacy assured. Valuation Offices: 41 Argyle Square, King's Cross, W.C.1.

WANTED, genuine Dispensing and Family Business, not doing less than £5,000 to £6,000 per annum, in or near East Coast; must bear the strictest investigation; should prefer to meet Chemist who is retiring now or near future; absolute confidence maintained throughout. 121/16, Office of this Paper.

WANTED, Business (town or seaside), West of England or Home Counties, with living accommodation; or would exchange own country business (Somerset) for one in above localities; all correspondence strictly confidential; no agents. 124/10, Office of this Paper.

FINANCIAL.

MANUFACTURING CHEMISTS.—A young and progressive firm of Manufacturing Chemists, with suitable works in London and excellent selling organisation, would consider association with other Manufacturing Chemists for sharing works and selling organisation or closer co-operation. Write Box 290, Horncastle, 5 Moorgate Buildings, E.C.2.

LEGAL NOTICE.

Re GEORGE SHAW GIBSON, deceased.

FOR Sale, the Business of a Chemist and Druggist carried on at Church Street, West Hartlepool, by deceased for over thirty years. Stock estimated at £2,000. For particulars apply Edward Fryer & Webb, Solicitors, West Hartlepool.

FOR SALE.

OL. Menth. Pip. Rect., a fine redistilled oil conforming to test of B.P., 1914, limited quantity only (about two Winchester), 42s. per lb., including package postage; cash with order. E. Gittins, M.P.S., 35 Livingstone Road, Birchfield, Birmingham.

MIXING Machine (Gardner's) for powders; capacity about 20 lbs.; two sieves, fine and coarse; good condition; cost £21; bargain. £5 15s. "Chemist," 47 Huddlestons Road, London, N.W.2.

YOUNGS' Filling Machine for Sale, suitable for health salts and other similar fillings; weighs from a fraction of an ounce up to 1 lb. Apply 69/310, Office of this Paper.

AGENCIES.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

MERCHANTS, with offices near Mincing Lane, wish to hear from firm of good standing with view to acting as Agents and Salesmen on their behalf in London, Wholesale or Retail; willing to hold stocks and distribute same; highest references from leading houses. 123/11, Office of this Paper.

SITUATIONS OPEN.

RETAIL.

[HOME.]

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

BIRMINGHAM.—Junior, chiefly for Dispensing, Counter occasionally. State age, height, experience, when disengaged and salary in first letter. Bramleys, 87 Holyhead Road, Handsworth, Birmingham.

BIRMINGHAM.—Required immediately, unqualified Junior Assistant; neat and accurate Dispenser, good Salesman and Window-dresser. Salary required and particulars to Williams, Chemists, 255 Lodge Road, Birmingham.

DURHAM.—Thoroughly reliable Junior male Assistant wanted for good-class Dispensing and Counter; easy hours; no Sunday duty; state age, experience, salary, etc., and when disengaged; photo if convenient. Smith, Chemist, Durham.

LANCASHIRE.—Required, competent qualified Chemist (male), with Veterinary experience, as Branch Manager; permanency. Full particulars to 126/14, Office of this Paper.

LIVERPOOL.—Experienced, qualified Assistant, not under 26, for good-class Pharmacy; good wages and comfortable berth for gentleman seeking permanency. T. Ashworth, 179 Bedford Street, Liverpool.

LONDON, E.2.—Assistant wanted in Working-class and N.H.I. business; must be accurate and a timekeeper. Age, experience, references, and salary actually expected, to Bennett, 7 Approach Road, Bethnal Green.

LONDON, W.—Qualified Assistant; smart Salesman, competent, quick and reliable all round; Optical qualification an advantage (not essential). Apply, with particulars, age, height, experience, salary required, enclose photo (returnable), Cofman's Pharmacy, 129 Baker Street, W.1.

MANCHESTER.—Unqualified Assistant (lady or gentleman), Window-dresser with ideas, competent to assist in Panel Dispensing; permanency to conscientious, tidy and good all-round worker. Apply, stating salary, age, experience and fullest particulars first letter, also copy of references, to 126/28, Office of this Paper.

NORTH WALES.—Qualified Manager for small Pharmacy in beautiful village; hitherto has been under a lady; charming locality. Full particulars to L. Rowland & Co., Chemists, Wrexham.

A VACANCY occurs in a West-End Pharmacy for a capable Assistant, young, qualified; to one who is energetic and accurate, with good Counter manners, this is an opportunity to progress. State experience and salary expected to "Steele," 127/13, Office of this Paper.

ASSISTANT, qualified or unqualified, for good-class Pharmacy, N.E. England; experience, personality and address more necessary than qualification; good knowledge of D. and P. essential. Please give (in confidence) full particulars of age, height, experience, and salary; photo. J. B. Cruickshanks, 20 Bondgate, Darlington.

ASSISTANT wanted, lady with sound knowledge of Dispensing and Counter, or smart male Junior; high-class Family Retail; London area. 124/17, Office of this Paper.

ASSISTANT (male); unqualified; quick and accurate Dispenser essential. Apply, with full particulars, to Wm. Fox & Sons, Ltd., 109, 111, 113 Bethnal Green Road, London, E.2. (10 minutes from Liverpool Street).

ASSISTANT (male), unqualified, quick and accurate Dispenser, with some knowledge of D. & R. work. Apply by letter only to the Manager, 741 Barking Road, Plaistow, E.15. Applications not answered in three days unsuitable.

CAPABLE and experienced Front Counter Assistant wanted, of good appearance and address, who has been accustomed to a good-class Provincial business; a practical knowledge of Buying and Window-dressing desirable. Apply, with full particulars of age, experience, salary required, and giving date when free, to A. E. Hobbs, 20 St. John's Road, Tunbridge Wells, Kent.

DOCTOR requires qualified Dispenser-Book-keeper before Christmas; either sex; willing; Shorthand an advantage; live out. State age, full particulars, experience, salary, recent testimonials. Dr. Kindersley, Warminster, Wilts.

JUNIOR Assistant, male, 20-25, unqualified, for East London Retail business; accurate Dispenser, good Salesman, with knowledge of Photography; good references essential. State age, experience and salary required; photo if possible; permanency to reliable man. 123/3, Office of this Paper.

JUNIOR Assistant (male) required (outdoors); must be a good Salesman and Stock-keeper; age about 21; preference given to a young man just finished a good apprenticeship. Please state age, height, experience, and salary required; photo if possible. Saudberg, Chemist, North Finchley, N.12.

JUNIOR.—Capable Junior (male) required immediately; no Sunday or holiday duty; outdoors. Please state salary required, give references, and enclose photo (if possible), which will be returned in all cases; also state when disengaged. Dunn, 10 Horseley Fields, Wolverhampton.

JUNIOR Assistant or Dispenser wanted at once; must be quick and accurate Dispenser. Apply, stating salary required and giving full particulars in first letter, to M. E. Murray, 221 Woodhouse Lane, Leeds.

JUNIOR Assistant, about 21, for good-class Dispensing business; accurate and experienced Dispenser essential. Stamp, 29 High Street, N.W.3.

JUNIOR Assistant wanted for good-class suburban business five miles from Manchester. Send full particulars by letter. Inglis, Heaton Moor, Stockport.

LADY Dispenser; qualified; experienced; outdoor; high-class non-Panel practice; work almost entirely Dispensing; permanency; middle of November. Apply, stating salary required, etc., Drs. Hood & Upton, Castlegate House, York.

LADY to take charge of Toilet Department; highest class experience essential; excellent position; progressive salary. State age, height, experience, salary, when disengaged in first letter, enclosing photo. Newsholme's, Ltd., Chemists, Toilet Specialists, High Street, Sheffield.

PHARMACISTS wanted as Managers of new branches; permanencies and good prospects. Timothy White Co., Ltd., Portsmouth.

QUALIFIED, young, chiefly for N.H.I. Dispensing (London, E.). Full particulars, wages required, and references to 121/15, Office of this Paper.

QUALIFIED Assistant (lady or gentleman); knowledge of Optics useful, but not essential. Full particulars to 124/33, Office of this Paper.

QUALIFIED Manager wanted for branch; must be good Salesman, reliable, and have knowledge of Photography. Give references and salary required in first letter to Gees', Chemists and Opticians, 7 School Road, Sale, near Manchester.

QUALIFIED Branch Manager (young) required. Apply, giving usual particulars and stating salary required, to Hartleys, Chemists, 59 St. James' Street, Burnley.

QUALIFIED Assistant wanted at once, chiefly for Dispensing. State experience, height, age, salary (outdoors), photo; permanency for right man. W. H. Dixon & Sons, Ltd., High Street, East Grinstead.

QUALIFIED man for Dispensing in high-class business. Give full details of experience, age, height, and salary required to Davies, John & Aspell, Bath.

QUALIFIED Superintendent for small limited company, London; must be alert, progressive, and of highest integrity; capable of extending the company's activities; good prospects to right man. Salary and full particulars (in confidence) to P.C.B. 33/2, Office of this Paper. Replies unanswered in four days respectfully declined.

QUALIFIED Branch Manager required; must be a good Window-dresser and Salesman; and used to good-class Family business. Apply, with full particulars, to Parkes Chemists, Ltd., 65 Harwood Street, N.W.1.

RELIABLE Assistant required for Dispensing and Counter. Full particulars to Frederick Liner, 156 King St., Gt. Yarmouth.

THE Halifax Industrial Society, Ltd., beg to thank all applicants for the position of Chemist, and state that the vacancy has now been filled.

TWO qualified Managers required; men of thorough experience and capable of managing efficiently; essential for applicants to have Window-dressing ability and a good Counter experience; vacancies are in businesses doing a working- and middle-class trade; house available in one case. Bannister & Thatcher, 45 Caldmore Road, Walsall.

UNQUALIFIED Assistant, not under 25, experienced, good-class Retail, Dispensing and Photography, for Cornish seaside town. Full particulars of salary, experience, etc., in first letter. All applications not answered in three days respectfully declined. 126/26, Office of this Paper.

WANTED, qualified man (by end of November) to open new branch in main thoroughfare near station, 10 miles Waterloo; good-class district; lock-up shop; considerable scope and permanency to suitable applicant. Also Junior required at once. P.C.B. 29/35, Office of this Paper.

WANTED, qualified lady for Dispensing and General work of Country Pharmacy; comfortable berth and easy conditions for conscientious worker. Apply, stating salary and age, with photo if possible, to Parks, Chemist, Tenbury Wells, Wores.

WANTED, a single, unqualified Assistant with good Dispensing experience; short hours; near London. 125/22, Office of this Paper.

WHOLESALE.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The **ADVERTISER** may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

ESTABLISHED Perfumery House issuing entirely new series high-class Perfumery and Toilet lines has vacancies for Representatives for the following territories: (a) London, West-End; (b) London, South; (c) Lancashire and N. Wales; (d) Birmingham and Midlands. Only live salesmen with established connections need apply. Write, giving full particulars, 73/429, Office of this Paper.

HARRISONS, LTD., Bayley Lane, Coventry, who are opening a new department of their old-established business, have an excellent and permanent opening for gentleman of integrity and outstanding ability, experienced in analyses, production throughout, and marketing, home and export, of absolutely highest class Toilet Requisites, Perfumes, etc.; salary and part proprietary interest offered; with or without investment. Apply, stating age, qualifications, experience, positions recently held, etc., in strictest confidence.

LONDON Manufacturers of Pharmaceutical Specialities have vacancy for young man of good education; preference given to one having experience in Manufacture of Pharmaceutical Preparations, including Pills and Tablets; would be required to travel abroad occasionally. Applicants should state full particulars in first instance, including salary required, etc., to P.C.B. 32/32, Office of this Paper.

PHOTOGRAPHS, TESTIMONIALS, &c.

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) **ORIGINAL TESTIMONIALS** or **VALUABLE PHOTOGRAPHS**. As can be readily understood, when an advertiser receives from 60 to 100 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

PROVINCIAL Wholesaler requires Junior with knowledge of Chemical Apparatus and Photographic Materials to assist in preparation of Catalogues, etc., and in general administration of this department. Apply, stating previous experience and salary required, to "X. Y. Z.," 73/432, Office of this Paper.

REPRESENTATIVE, with an established connection amongst Chemists, Hairdressers and Stores in Midlands, particularly Notts, Derby and Lincs, required immediately; own car if possible; Drugs, Sundries and Proprietaries; commission and part expenses, or salary, expenses and commission could be arranged. Apply, giving full particulars and references, 73/437, Office of this Paper.

REPRESENTATIVES, with connection amongst Chemists and Hairdressers, required for several districts by an established house with high-class Counter lines, Packed Drugs and Toilet Specialities; 12½% commission basis. Apply, giving full particulars and reference; to 124/9, Office of this Paper.

REPRESENTATIVES required in all parts of London and for every county in the British Isles calling upon Chemists to carry a small range of advertised Proprietary Products as a side-line or full-time; good terms and prospects to the right men. Reply by letter, with full particulars, to E. L. Jackson & Co., 34 High Holborn, London, W.C.

REPRESENTATIVES required, having active open connections amongst Manufacturing Chemists, for sale of Seasonable Preparation already largely used; liberal commission and adequate support, including lists of present users, entrusted to selected applicants. 73/435, Office of this Paper.

REQUIRED, energetic Representative, with connection, calling upon Chemists and Perfumers, etc., for London and provinces to sell Chemist and Perfumery Bottles, also Essential Oils. Write, stating age, and full particulars of ground covered, etc., wages required, "R. A. F.," 73/430, Office of this Paper.

SITUATION vacant for Traveller; Speciality: South London area; connection essential; commission and expenses; real proposition for live man. Apply 127/5, Office of this Paper.

WHOLESALE Sundry and Patent House requires an experienced Dispatch Clerk able to enter and execute orders and look after staff. Apply 124/6, Office of this Paper.

[COLONIAL, INDIAN AND FOREIGN.]

FRENCH RIVIERA.—Several Assistants required for winter season at Nice, Monte Carlo, Menton, etc.; first-class experience; knowledge of French preferable, but not essential. Apply in first instance, giving full particulars, to Reilly & Co., rue Népce, Nice, (France).

RIVIERA (Cannes).—Good opportunity offered of learning French language and business. Wanted, young gentlemanly qualified Chemist; fare paid; good salary; please send full particulars; personal interview later. P.C.B. 32/11, Office of this Paper.

RIVIERA.—Required for winter season (December 1-April 15), Dispenser to help English Chemist; opportunity to learn French and become acquainted with French Dispensing. Apply, stating age and experience, to Pharmacie Coulet, Hyères, France.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

SITUATIONS WANTED.

RETAIL.

[HOME.]

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.A.A.—A young qualified gentleman desires a permanent position as Manager or Assistant; highly recommended as being quick, reliable, good Salesman and Window-dresser and a worker; Photographic knowledge; 10 years' experience; Midlands preferred. "M. C.," 25 Dun's Lane, Leicester.

A.A.A.—ASSISTANT; unqualified; 34; disengaged; good all-round experience; London or suburbs preferred. "Advertiser," 5 Linkway, Chadwell Heath, Essex.

A.A.A.—QUALIFIED, 27, tall, single, experienced, desires position as Manager or Assistant. J. S. Willcocks, Datchet, Bucks.

ALL-ROUND, unqualified, 40, married, no children, requires permanency as Manager or Assistant; excellent references; used to good-class Retail; last post Manager, seaside branch. Wale, "Sunnymead," Hunstanton.

ANYWHERE, permanency or Locum; unqualified; 25; experienced all branches and as Manager; smart and tactful Salesman; quick and accurate Dispenser; energetic and reliable; highest references; disengaged. 73/431, Office of this Paper.

ASSISTANT, Junior (19), Retail and Photographic experience, desires post in high-class Dispensing business; Yorks preferred; disengaged. 123/6, Office of this Paper.

ASSISTANT or Manager, qualified, aged 26, desires change; Dispensing, Counter and Photographic; Midlands preferred. 124/31, Office of this Paper.

ASSISTANT, 27; high-class Dispensing and Counter experience; South and East Coasts. 11 Bedwas Place, Penarth.

ASSISTANT or Manager; first-class experience and references; 7 years West-End; tall; abstainer; Photography; age 38. MacLellan, 4 Arundel Gardens, W.11.

ASSISTANT (unqualified) desires post, whole or part time; Counter and Dispensing. "V.," 45 Edgeley Road, Clapham, S.W.

ASSISTANT; middle-aged; unqualified; energetic; reliable; wide experience; good Counterman; Photographics. "E. U.," 34 Talbot Terrace, Lewes, Sussex.

ASSISTANT; 23; unqualified; 9 years' experience, Dispensing; Window-dressing and Counter; good references. "G.," 6 Packington Street, Islington.

ASSISTANT; unqualified; 24; 9 years' experience in Retail, or would change to Wholesale; disengaged. 127/7, Office of this Paper.

ASSISTANT; experienced; 35; unqualified; up-to-date; reliable; energetic; keen Window-dresser; brisk Counter; thoroughly capable of taking charge; 8 years last two situations; London or suburbs; disengaged when required. 126/39, Office of this Paper.

BAILEY & ALEXANDER, Dispensing Chemists, Boston, Lincs., confidently recommend smart and trustworthy Apprentice (completed 3 years) for position as Junior in town offering facilities for study; passed Preliminary.

BRANCH Manager; qualified, experienced, successful record, sound references; satisfaction assured; Photography; disengaged (would Locum). "J.," 55 Chamberlain Road, London, N.9.

BRANCH Manager, qualified, capable, conscientious, 25 years' experience, well recommended, disengaged, married; interview will lead to business; London suburbs or within 40 miles preferred; permanency. P.C.B. 32/56, Office of this Paper.

BRANCH Manager; qualified; City and West-End experience; capable and active; excellent references; free one week. 73/433, Office of this Paper.

NAMES AND ADDRESSES.

When sending advertisements for any of the sections in this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not followed and delay and disappointment ensues. Strict attention to this detail will be appreciated.

DISENGAGED October 30, qualified, experienced Pharmacist; rapid Dispenser; Locum or permanency. "Pharmacist," 3 Rectory Road, Stoke Newington, N.

DISENGAGED Pharmacist (male); experienced; part or full time. "Chemist," The Limes, 69 Elthorne Park Road, Hanwell, W.7.

EXPERIENCED Counter-hand, Photography, Stock, Windows; conscientious; trustworthy; abstainer; permanency desired; free November 14. 124/18, Office of this Paper.

LADY desires position as Assistant in London; 8 years' experience high-class Dispensing, Counter and Photographic work. 124/14, Office of this Paper.

LADY Dispenser, 9 years' experience (Hall), desires full-time, part-time, or evening work; excellent testimonials. G. M. Holliday, 50 Friends Road, Croydon.

LADY desires position; experienced Book-keeping, Pricing, Invoicing, and General Routine; Chemist's business; excellent references. 30 Mereworth Road, Tunbridge Wells.

LADY Assistant, qualified (Minor), 25, requires whole or part-time position in a Retail Pharmacy in London. P.C.B. 32/30, Office of this Paper.

LADY Assistant, unqualified, desires post in London; Counter, Photographic and Window-dressing; 8½ years' experience. 126/18, Office of this Paper.

LOCUM (unqualified) or permanency; take sole charge if required; experienced all branches, Dispensing, Counter, Windows; seaside, country, West-End experience; age 39; free 31st. "Lilford," 126/38, Office of this Paper.

MANAGER, unqualified, seeks position with view to succession; good all-round experience; highest references. 112/25, Office of this Paper.

MANAGER, Locum, or permanency; disengaged shortly; Manchester district; good references; middle-aged. "Chemist," 5 Sylvan Grove, Manchester.

MANAGER or Locum; 27 years; good all-round experience; tall; good references. "Chemist," 33 Adwick Road, Mexborough.

MANAGER; fully qualified, open for engagement; undeniable references; Scotsman; abstainer; experienced. Write "A.," 39 Argyle Gardens, Upminster, Essex.

MANAGER, age 40, married, 25 years' excellent all-round experience, desires change; at present managing high-class Dispensing and Pressing business; living over shop; Photo, Window-dressing, Counter, etc.; good appearance and address; height 5 ft. 10 in. Offers and particulars, "Burke," 127/29, Office of this Paper.

MINOR Student, Lady, 21, disengaged; excellent references; Dispensing, Counter, Window-dressing, Stock, Photographic; accessible. 61 Blakehall Road, Carshalton, Surrey.

M.P.S., 24, desires post as Manager or Senior; good worker; well recommended; disengaged. "Chemist," 6 Savile Road, Leeds.

M.P.S., 42, married, Manager, wide experience, highest class Dispensing, Toilet, Photographic, and up-to-date Window-dressing, desires change; present situation 10 years; highest references. 126/16, Office of this Paper.

M.P.S., 27; Senior or Manager; West-End and City experience; excellent references; free one week. 73/434, Office of this Paper.

MURIEL PRICE, qualified, disengaged November 9, desires post in London district; front counter; experienced Saleswoman. Priesthills Road, Hinckley, Leicestershire.

PART-TIME, evenings; thoroughly experienced Assistant; 3 or 4 evenings; S.E. or S.W.; excellent references. 295 New Cross Road, S.E.14.

PART-TIME.—Unqualified, age 24, requires evenings and Saturday situation whilst attending College; excellent Dispenser and Counterman; interview. "Aspirin," 32 Tremadoc Road, Clapham, S.W.4.

PART-TIME; any days or hours, or permanency; middle-aged, active, reliable; unqualified; good Dispenser; used to quick Counter trade; highest reference. Donaldson, 27 Courtland Avenue, Ilford, Essex.

PHARMACIST, 23, requires post as Senior; 8 years' experience, high-class Dispensing, Photography, Window-dressing, etc.; excellent reference; Brighton district preferred. Trotti, 8 Bellevue Terrace, W. Worthing.

PHARMACIST, 38, requires position as Manager or Senior; 12 years' experience management, including West-End; first-class references. 124/13, Office of this Paper.

QUALIFIED; 25; Manager or Senior; good experience; excellent references. 123/38, Office of this Paper.

QUALIFIED; 63s. weekly as Cover, Locum or permanency; elderly; experienced Prescriber and Dispenser; disengaged November 2. "Aspirin," 66 Vancouver Road, Forest Hill.

QUALIFIED lady, 23, 5 years' Retail experience, desires post in high-class Pharmacy; Dispensing and Counter. 124/8, Office of this Paper.

QUALIFIED; 30; tall; active, courteous, trustworthy; good all-round experience; married; abstainer. R. Siddall, 9 St. James Park, Croydon.

QUALIFIED; 51; tall; energetic; abstainer; excellent testimonials and personal references; thoroughly experienced in all branches of good-class Pharmacy and Photographics. Photo and references, on request; interview by arrangement. "Chemist," 59 Gloucester Crescent, Regent's Park, N.W.1.

QUALIFIED, 25, 5 ft. 10½ in., experienced all branches, undeniable references, active, disengaged, desires progressive position; Manager or Senior. Stephens, 59 High Street, Droitwich.

QUALIFIED, 26, tall, requires situation as Manager or Assistant; good experience and references; Southern Counties preferred; disengaged November 16. Griffith, The Bungalow, Spath Road, Didsbury, Manchester.

QUALIFIED, 28, height 5 ft. 7 in., active, reliable; fully experienced all branches of business, requires sound progressive permanency. "W.", 61 Rostrevor Road, Fulham, S.W.6.

QUALIFIED; elderly; Manager, Dispenser, Cover, Locum; disengaged; any district. "Pharmacist," 229 Robins Lane, Sutton, St. Helens, Lancs.

QUALIFIED Assistant, 27, requires a post; had Dispensing experience; needs more Counter work; excellent testimonials; free November 2; moderate salary; anywhere in Wales; Welsh speaking. "Aspirin," Brynteg, Manidiles.

QUALIFIED, experienced, efficient, middle-aged, requires whole or part-time; London; references. "Chemicus," 54 Crouch Hill, N.4.

QUALIFIED; elderly; Cover, whole or part-time, Locum; very active; salary moderate. Warrington, 16 Spring Grove Road, Isleworth.

QUALIFIED (27), single, all-round experience, desires position as Manager or Assistant. 126/23, Office of this Paper.

QUALIFIED, 26, single, West-End and Paris experience, and Photography, seeks post as Senior or Manager. 126/31, Office of this Paper.

QUALIFIED Chemist seeks situation; satisfactory references; many years' varied experience; Retail or Institution. "Ph.C.," 125/31, Office of this Paper.

UNQUALIFIED Assistant, 35, tall, good all-round experience, desires position in Wholesale or Retail; excellent references; at liberty. Lamb, 84 Osborne Road, Forest Gate, London, E.7.

UNQUALIFIED (26); 8 years' experience; Dispensing, Counter and Photography; excellent references; disengaged. "R. W.," 41 Geraldine Road, Wandsworth.

YOUNG lady Dispenser (Hall), studying for Minor, desires post with Chemist; good references; small salary; Essex or East London. 124/12, Office of this Paper.

YOUTH, 17 years, tall, and of good appearance, requires Apprenticeship in or near Ilford; 1 year's experience; good references. Apply 74/439, Office of this Paper.

WHOLESALE.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

ADVERTISER, experienced, conducting regular personal propaganda among Doctors, London and provinces, would undertake additional new proposition requiring skilled introduction. Apply P.C.B. 30/15, Office of this Paper.

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